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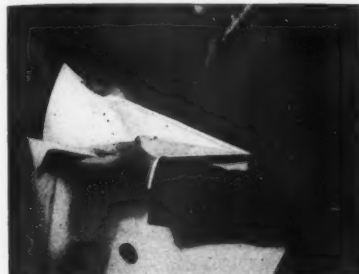
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THE NATIONAL PROVISIONER

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DAILY MARKET SERVICE

(Mail and Wire)

E. T. NOLAN

C. H. BOWMAN
Editors

The National Provisioner Daily Market Service reports daily market transactions and prices on provisions, lard, tallow and greases, sausage materials, hides, cottonseed oil, Chicago hog markets, etc.

For information on rates and service address The National Provisioner Daily Market Service, 407 So. Dearborn St., Chicago.



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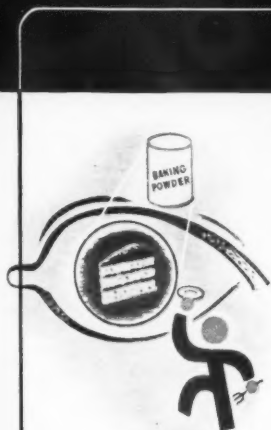
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shown here illustrate the imagination and skill of Continental's artists, at your service should you need their help.

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**Your Sausages will look plump and
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● Elasticity is what gives silk stockings eye-appeal. And the elasticity of Armour's Natural Casings gives eye-appeal to sausages. Because they cling firmly to the meat — these superior casings make your sausages look plump, firm, and fresh *always!*

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This Week's NEWS HIGHLIGHTS

Not All \$200 Monthly Men Wage-Hour Exempt

ALL "white-collar" workers making more than \$200 a month are not exempt under the re-definitions of "executive," "administrative" and "professional," announced recently, it was emphasized by Colonel Philip B. Fleming, Administrator of the Wage and Hour Division, U. S. Department of Labor.

Many questions on this point were received at the Wage and Hour offices following the announcement of the new definitions which became effective on October 24, the same day on which the standard workweek dropped to 40 hours under the law. Employees are not limited to 40 hours a week but must be paid time and one-half for all work in excess of that.

"Employers should examine the definitions we have just issued," said Colonel Fleming, "before coming to the conclusion that any of their employees are exempt from overtime payments because they are getting \$200 a month or more.

"The \$30-a-week clause in the definition for 'executive,' and the \$200-a-month clause in the definitions for 'administrative' and 'professional' employees (except doctors and lawyers) are accompanied by other clauses, the terms of which must be met.

"The number of inquiries coming to the division today on these changes leads me to point out that the clauses in these definitions are usually connected by 'and'—not 'or.' As a result, an 'executive' or 'professional' or 'administrative' employee must meet all of these tests before the employer can safely abandon keeping records of his hours and paying him time and a half for overtime. It is not enough to find that one of these clauses fits the employee in question."

DRAFTEES' PAY NOT WAGES

Payments made by employers to men in training under the Selective Service and Training Act, to supplement their military pay, are not considered as wages under the Illinois Unemployment Compensation Act, State Director of Labor Martin P. Durkin said this week.

Census Shows Packers Increase in Number, Volume from 1937 to 1939

MORE meat was handled by packers in 1939 than in 1937, but there was a 5 per cent decline in the reported value of their products, according to preliminary returns of the Census of Manufactures for 1939.

Products leaving wholesale meat packing and custom slaughtering plants had a total value in 1939 of \$2,649,292,810, against \$2,787,357,940 in 1937.

There was a 6.7 per cent decline in the cost of materials, supplies, fuel, purchased electric energy, and contract work, from \$2,386,090,468 in 1937 to \$2,226,188,793 in 1939. Average live cost of livestock to packers was 7.3 cents per pound for cattle, 8.3 cents for calves, 8.4 cents for sheep and lambs, and 6.8 cents for hogs.

The decline in total value of the industry's product is distributed between cured meat, hides, skins, and pelts, etc., rather than fresh meat.

More Fresh Meat

Total poundage of fresh meat produced was 10,986,542,475 in 1939, against 9,956,376,142 in 1937. Its value rose from \$1,418,729,527 in 1937 to \$1,461,503,595 in 1939. One type of fresh meat showed a fall in both poundage and value. Veal production was 778,776,802 lbs., in 1937, with a value of \$105,086,001. In 1939, it dropped to 677,095,848 lbs. valued at \$97,978,482.

Beef continued as the leading commodity, with 1939 poundage of 5,483,464,318 valued at \$765,861,914, compared with 5,235,563,960 lbs. valued at \$710,531,368 in 1937.

Pork production ranked second, increasing from 2,519,146,851 lbs. in 1937 to 3,347,022,945 in 1939, but value dropped from \$415,525,668 to \$408,309,991.

Poundage of mutton and lamb went

up from 775,211,413 to 781,822,476, but value fell off from \$128,270,281 to \$126,442,118.

Edible organs, such as livers, hearts, brains, tongues, tripe, etc., increased from 631,141,759 lbs. to 678,375,030, with a rise in value from \$57,989,923 to \$61,626,425.

Total poundage of other fresh meat was 18,761,858 in 1939, compared with 16,535,357 in 1937, but value declined from \$1,326,286 to \$1,284,665.

Cured Meat Value Lower

Cured meat increased in poundage from 2,388,831,440 to 2,918,775,151, but dropped in value from \$503,881,461 to \$450,941,527.

Smoked pork, pickled and dry-cured, was the biggest item in this category, with a 1939 poundage of 1,353,900,231, valued at \$242,881,507. This compares with 1937 poundage of 996,065,821, valued at \$235,530,519.

Pickled and dry-cured pork that was not smoked amounted to 707,678,211 lbs. in 1939, against 641,763,910 in 1937, but value dropped from \$118,556,833 to \$95,478,932. Production of pork that was dry-salted, but not smoked, totaled 561,001,189 lbs. in 1939, a gain over the 1937 poundage of 430,527,199. Value, however, dropped from \$64,072,256 to \$41,183,334.

There was a fall in poundage of dry-salted, smoked pork from 114,833,686 to 87,214,954, with value declining from \$24,268,086 to \$13,936,919.

Pickled and other cured beef had a total poundage in 1939 of 67,294,508, compared with 71,425,708, but value rose slightly, from \$15,018,947 to \$15,021,856.

Cooked hams prepared in packing and slaughterhouses increased in poundage from 134,215,116 to 141,686,058, but de-

Such payments need not be reported to the Division of Placement and Unemployment Compensation, and no contributions need be paid on remuneration in this category.

"Many Illinois employers are adopting the policy of supplementing the

military pay of employees who are called for training," said Director Durkin. "In some cases, they match the amount paid by the government, and in other cases pay the employee the difference between his military pay and the amount he was receiving in his civilian occupation."

clined in value from \$46,434,820 to \$42,438,979. In addition, cooked hams produced in other industries were reported for 1937 in the amount of 78,921,378 lbs., valued at \$23,053,141. The comparable figure for 1939 will be included in the final meat packing report.

The industry produced 330,769,439 lbs. of canned meat in 1939, compared with 240,767,016 lbs. in 1937, and value rose from \$48,182,856 to \$63,348,362. Of the 1939 total, 247,557,315 lbs. were vacuum-cooked with a value of \$46,281,041.

Poundage of canned sausage increased from 26,604,334 in 1937 to 27,114,071 in 1939, but value fell from \$5,714,688 to \$5,367,578.

Sausage other than canned, meat puddings, headcheese, etc., aggregated 1,034,730,943 lbs. in 1939, against 988,968,250 in 1937, but value dropped off from \$174,934,695 to \$166,007,147.

Sausage casings produced by the industry had a total value of \$11,940,891 in 1939, a drop from the 1937 figure of \$16,143,700. Of the 1939 total, hog casings accounted for \$6,266,831, sheep and lamb casings \$3,516,657, and beef casing \$2,157,903.

More Lard—Value Lower

Lard poundage rose from 1,034,927,606 to 1,551,743,480, but value dropped from \$126,331,478 to \$107,376,837.

Dog and cat food produced in this industry increased from 150,319,869 lbs. in 1937 to 158,084,501 in 1939, with a rise in value from \$8,383,863 to \$8,872,750.

Oleo oil poundage fell from 67,738,829 to 66,324,904, with a decline in value from \$7,533,268 to \$4,550,547. Poundage of oleo stock dropped from 10,098,335 to 7,091,400, with a decrease in value from \$946,230 to \$506,882. Stearin production fell from 30,982,111 lbs. to 28,343,336, with a loss in value from \$2,796,223 to \$1,701,608.

The report also includes statistics on output and value of livestock by-product feed materials and fertilizer materials, hides, skins, pelts, wool, and animal hair.

The 1939 operations of 1,516 establishments were covered. They employed 120,467 wage earners in work other than distribution and construction, with a payroll of \$162,180,141. Salaried personnel numbered 17,156, with earnings of \$40,002,900. Only 40 of the total number of establishments were primarily engaged in custom slaughtering for others.

ANNUAL CONVENTION ISSUE

Next week's issue of THE NATIONAL PROVISIONER, dated November 2, will carry complete reports of the thirty-fifth annual convention of the Institute of American Meat Packers, held at the Drake hotel, Chicago, October 18 to 22. Convention exhibits, personalities, social activities and the informal as well as the official side of the convention will be graphically depicted in the large, profusely illustrated convention issue.

ONE SALE—FIVE UNITS

Meat packers producing canned or bottled items might well take a cue for stepping up sales from this combination package used by Knight Packing Co., Portland, Ore., packers of mustard, onions, maraschino cherries and other accessories to a well-rounded meal. Made of Oregon pine, the container houses five jars of Knight's products and has found a ready market at cocktail bars, in hotels and groceries serving better class districts. The package received a 1940 Wolf award for combination units. Cocktail frankfurts and sausage, liver sausage, meat pastes and spiced pork items are among the products lending themselves to similar treatment.



PACKAGE COMPETITION

Once again, under the auspices of *Modern Packaging*, the annual All-America Package Competition takes form to reflect the past year's latest and most ingenious developments in the creation of new packages, new displays and new machinery installations. A special drive is now on to encourage entries in an effort to far exceed the 30,000 packages submitted last year.

Entry is open to all designers, package suppliers, machinery manufacturers, package-using firms and others responsible for the creation of the package or display. There are no restrictions regarding the number of entries that may be submitted. Any package, display or illustration of packaging machinery installation, which has reached the market or has entered production during the calendar year of 1940, is eligible for entry.

Various phases of the packaging industry will be well represented in the twenty broad classifications which have been set up: 1) folding cartons; 2) collapsible tubes; 3) fibre cans; 4) glass containers; 5) metal containers; 6) set-up paper boxes; 7) plastic containers; 8) machinery and equipment, class A; 9) machinery and equipment, class B; 10) counter or shelf displays; 11) floor displays; 12) window displays; 13) shipping containers; 14) family group; 15) wraps, bags, envelopes: opaque; 16) wraps, bags, envelopes: transparent; 17) labels and seals; 18) closures; 19) rigid transparent containers (other than glass) and 20) miscellaneous containers.

The task of selecting three major award winners within each group will be handled by a fully qualified board of judges. The board is representative of

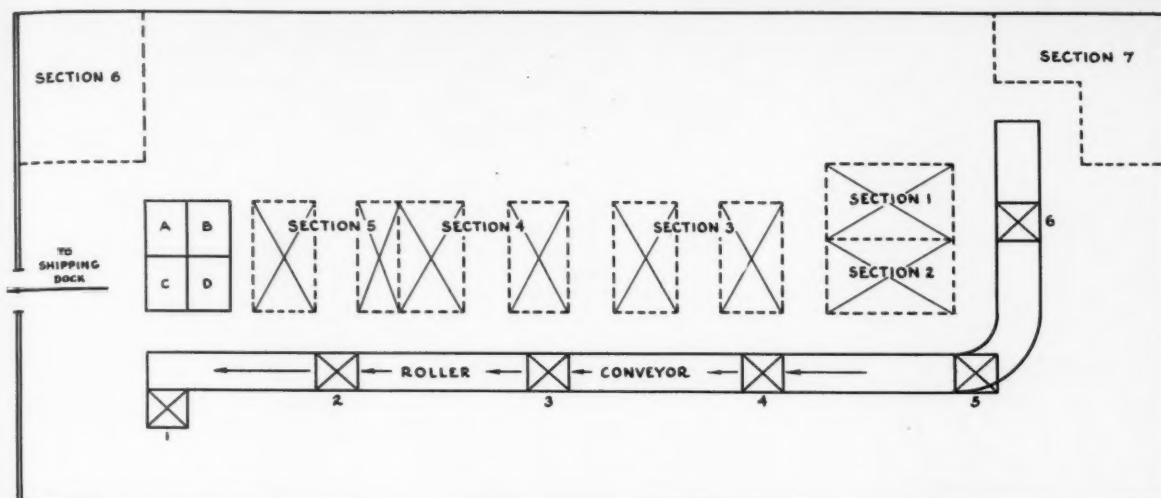
art, industry, merchandising and the consumer, and its decisions will reflect sound knowledge, as well as a true perspective of the packaging industry.

The current competition closes on January 6, 1941. Major winners and honorable mentions will be announced in the March, 1941, issue of *Modern Packaging*. Award plaques, which symbolize the highest single achievement in the field of packaging will be officially presented to the winners at a banquet in Chicago some time in April.

AMERICAN ROYAL SHOW

Cattlemen in high heel boots and trim drum majorettes will be one of the many contrasts to greet guests at the forty-second American Royal Live Stock show in Kansas City, November 9 to 16. Livestock exhibitors will show approximately 5,000 animals in competition for over \$70,000 in cash awards. Junior exhibitors are expected to enter record breaking numbers of calves, swine and lambs. Adult exhibitors will show individual breeding cattle and fat steers, carlot fat and feeder cattle, breeding hogs and fat barrows, carlot hogs, breeding sheep and fat lambs.

The opening day parade will be led by Leo Carrillo, motion picture actor, and his famous parade horse. Winner of the title "Queen of the American Royal" will be presented at coronation hall at the Municipal auditorium. Last year's winner was from Oklahoma. As a new feature, at the first two night performances of the horse show, one hundred drum majorettes will perform as a unit. The U. S. Second Cavalry Dragon ride will be seen at all performances.



Conveyors for Efficiency in Order Filling

By R. E. HOFFER
Industrial Engineer

THERE is a definite opportunity to reduce costs in the shipping rooms of a large percentage of smaller meat packing plants. Many packers overlook the possibility of saving money in this department.

A highly competitive industry, such as meat packing, cannot afford to disregard cost cutting opportunities, particularly in connection with operations which are performed day in and day out. Savings can usually be made in the shipping department by the elimination of waste motion and unnecessary trips for "short" items, and the substitution of other methods for the "caller" system or "individual" system of order filling.

Companies in which order filling is a major activity, such as mail order houses, have become highly efficient in it. Their order filling technique is the result of scientific study aimed at the design of efficient layouts, stock classifications and bin and shelving arrangements. They have learned how to handle shortages and control the filling of orders on time schedules.

Shipping Room Improvements

Certain of the larger packers have efficient mechanical lines for assembling, packing and shipping lard, oleomargarine, dog food and other standard container products. Other packers have improved their shipping rooms through the installation of air conditioning, order accumulation bays and the separation of truck and carload shipping. Some plants use light signal systems and open call systems between the shipping rooms, accumulation rooms, docks and plant trucking department. These latter improvements save much time for department foremen, telephone operators and shipping room supervisors.

However, development of really efficient shipping room procedure has been rather slow in a great many packing plants and the industry as a whole lags behind others in this respect. In fact, it might be said that the meat packing industry is somewhat closed to outside developments and hesitates to make changes which would cut costs. Some operating methods have been in use for many years without serious attempts being made to reduce waste motion, useless walking and other unproductive labor.

A high percentage of the operations which are not controlled by a conveyor chain or table are noticeably unde-

veloped and show considerable room for improvement. The filling of orders in the shipping room is a conspicuous example.

hazard methods used in some plants. In these latter cases the containers may be packed at apparently convenient locations (which may or may not be adjacent to a scale and sealing or banding machines). The containers must be lifted to a truck, placed on a scale, removed and reloaded on a truck, unloaded, stitched or sealed and then trucked to a cooler or shipping room.

Consideration must be given to the loading and unloading ends when a conveyor is used. Delivery to the conveyor can often be accomplished by means of a chute or by a division in transporting conveyor. Delivery to storage can sometimes be made by an extended conveyor or floor chute rather than by use of trucks. In some cases deliveries can be made directly to the accumulation or shipping room by conveyor or chute connections with the packing conveyors in the various processing departments.

The order filling conveyor plan which will be described here is recommended for replacing the "caller" system, or the complete preparation of a customer's order by one order filler.

Conveyor equipment and product bin arrangement will vary according to the layout and the amount of floor space available. Some shipping rooms can be arranged so that a straight line conveyor can be installed, while others must use a conveyor of "L" or "U" design. The length may vary from 40 to 60 ft., depending on the volume and number of products handled.

L-CONVEYOR LAYOUT

LEGEND: 1 is check scale, while 2, 3, 4 and 5 are station scales; A, B, C and D are truck skids. Section 1 is for fresh cuts; Section 2, dry salt products; Section 3, sausage; Section 4, wrapped hams, loaves, etc.; Section 5, produce, boxed bacon and vinegar pickled goods; Section 6, peddler orders, and Section 7, empty container storage.

While the primary object of this article is to suggest improvements in shipping room procedure, principally through adoption of a conveyor system, it may be pointed out that various plants are using conveyors for departmental packing lines. Wrapped or unwrapped items which are packed in standard quantity or standard weight containers are passed over a conveyor scale to check them to a desired weight. This plan is not new, but is being used more widely and will be found in new plant and new departmental layouts.

Contrast the conveyor equipped with a scale in line and a section for closing the shipping containers, with the hap-

empty boxes or shipping containers.

After the conveyor layout has been made and the products properly arranged, consideration should be given to a pre-printed order form. This form has the items printed in the same sequence as they are found along the conveyor line. Plants which have an average of 20 or more items per order will find the pre-printed form a time-saver. However, if the average number of items per order is six or fewer, the standard order form will be found satisfactory since there should be no delay in reading low item orders.

Pre-Printed Order Form

Here is how the system works. New orders are reviewed by the shipping room supervisor to spot shortages and orders containing "short" items are held up until the product is in the shipping room. After reviewing the orders, the supervisor gives them to the order filler at the first station on the conveyor line.

The first station should contain fresh meat cuts and offal items so that these can be placed in the customer's box first to avoid drainage on other product. The first order filler places the empty box on the conveyor, selects the products called for by the order, weighs them, records the weights on the order blank and then moves the box to the next station via the conveyor.

The second station order filler repeats the process of selecting and weighing the items located in his section, records the weights and pushes the container to station number three.

In the event that dry salt items move in sufficient volume, these might be included in the second station group. All dry salt meats should be wrapped carefully to prevent the salt from falling on other items in the order.

Product Grouping

Other stations or sections may be set up to fill orders for the following products:

- Sausage
- Franks and chili
- Wrapped hams, meat loaves, smoked butts and boiled hams
- Produce items

The character of the packer's business and the volume in which each product moves will largely determine the grouping and the station location.

A check scaler with a platform scale should be located at the end of the conveyor to check items and gross weight for the completed order. This operator should seal or band the container. The job of placing the checked order on a truck skid or truck, and delivery to the truck dock, can be performed by the check scaler on low volume days. He will need assistance during heavy volume periods.

Plants which are not bothered with shipping room shortages can issue the orders to the first packing station in truck route sequence so that the truck

LIVING COSTS RISE

The cost of living of wage earners' families in the United States, after declining for two months, rose 0.5 per cent from August to September, according to the monthly survey conducted by the division of industrial economics of The Conference Board. Increased costs of all the major items of the wage earner's budget caused this rise.

Food prices, which rose 1 per cent from August to September, were the same as during September, 1939 and were only slightly lower than during June and July of this year when they attained their 1939-1940 peak. Compared with the depression low of March, 1933, food prices advanced 32.1 per cent but they were 26.8 per cent lower than in September, 1929. Rents, clothing, fuel and sundries also advanced in price during the August to September period, according to the survey.

NEW LARD RULING PASSED

A new regulation prohibiting trading in lard futures during the last seven days of the month in which deliveries are to be made was passed at a recent meeting of directors of the Chicago Board of Trade. The regulation 1837, which becomes effective in all lard contracts for delivery after November 30, reads as follows:

"No trades in lard futures deliverable in the current month should be made during the last seven business days of that month, and such contracts may be settled by delivery after trading in such contracts has ceased and if not previously delivered, delivery must be made upon the last business day of the month."

driver will not have to sort out and route the orders when he is loading the delivery truck.

A change over from the "caller" system to the conveyor method has brought savings in shipping room costs ranging from 20 to 50 per cent. The reduction in expense, more efficient and rapid utilization of motor truck loading facilities and earlier deliveries to dealers, more than repay the packer for rearranging his shipping room and installing conveyor equipment in it.

In closing it may be pointed out that without proper cost control the management cannot know whether shipping room costs should be 5c or 20c per 100 lbs. of product shipped. Costs can be maintained at a lower and more uniform level by means of correct standards and proper control.

The speedy receipt of orders in the order department from the salesmen or order clerks, and the dispatch of these orders to the department or shipping room without delay, are also important factors in efficient shipping room operation. Delays in shipment are often caused in the order division rather than in the shipping department.



SMOKED TURKEY IN NEW FORM

Container and red, white and blue counter card being used by Pinesbridge Farm, Ossining, N. Y., to introduce smoked turkey in pate form. Container and card are work of Gustav Jensen, packaging expert. The new product will sell at 65c for the four-oz. jar. Developed by Pinesbridge Farm, smoked turkey has previously been available only by the whole bird (seven lbs. minimum) at \$1.35 per lb.

QUICK FREEZING IN GERMANY

American techniques for quick freezing are being studied and adopted in Germany, according to a recent report to the *New York Times*. One of the chief reasons for introduction of preservation by freezing is said to be a scarcity of metals and glass, now needed for wartime purposes.

The Reich Institute for Food Preservation, at a recent meeting, described the results of experiments with quick freezing as most satisfactory. "A number of varieties of fruits and vegetables have been found highly suitable for preservation by this means," it was reported.

Further developments in quick freezing technique are to be pressed rapidly. The problem of transporting the foods to the consumer after freezing is receiving special attention.

FINANCIAL NOTES

United Stock Yards Corp. has been authorized by the Securities and Exchange Commission to withdraw its 7 per cent cumulative preferred stock from listing on the New York Stock Exchange. The company had sought to delist the stock because it declared that a broader market would exist for it exclusively in the over-the-counter markets. The order becomes effective November 15.

A dividend of 20c a share on the common stock has been declared by Mickelberry's Food Products Co., payable December 20 to stockholders of record on December 2.

CHEMISTS REVIEW FINDINGS ON RANCIDITY AND OXIDATION

BY C. ROBERT MOULTON

Consulting Editor,
The National Provisioner

I.

ALL meat packers who manufacture lard or other edible fats are interested in the subject of rancidity because their products must compete with other shortenings in respect to keeping qualities. While it is true that special products, with properties that meet the particular needs of some special use may have a part of the field to themselves, the manufacturer of lard cannot afford to let this happen too often.

Lard must meet the challenge of other fats over a great part of the field if it is to retain its rightful place. Consequently, all packers should know more about the unfavorable changes which may take place in a fat during use, or on its way to the ultimate consumer in some finished baked or fried product.

No one knows this better than the chemists who attended the symposium on "Oxidation, Rancidity and Flavor Reversion of Fats and Oils" which was a feature of the recent convention of the American Oil Chemists Society. The convention was held on October 2, 3, and 4 in the Stevens Hotel in Chicago.

While all of the papers were of great interest to the oil and fat chemist, some were too technical for review in this brief summary, which is presented for the information of the meat packer who may not be acquainted with chemistry.

MECHANISM OF OXIDATION

The first paper by Dr. H. A. Mattill of the State University of Iowa on "The Mechanism of the Oxidation of Fats" discussed the processes which occur in fats which are undergoing the oxidation changes resulting in rancidity. He reminded the audience that the oxidation of edible fats proceeds by a process classed as autocatalysis or self-promoting. The process shows an induction period during which oxidation may occur but no rancidity is apparent.

After this preliminary period, there is a final speeding up of the changes which culminate in rancidity. Dr. Mattill further discussed the chemical compounds formed during the process, some of the factors which speed it up and methods of measuring its progress. The chemist interested in fats will do well to read the complete paper which will appear with the other papers delivered at the symposium in a forthcoming issue of the Society's official publication, "Oil and Soap."

CONTROL OF RANCIDITY

The second paper by Mayne R. Coe of the U. S. Department of Agriculture was a discussion of "Factors which In-

crease the Rate of Oxidation of Fats and Oils." He pointed out that the primary factors known to speed up oxidation are metals and light. Contributory factors include air, moisture, temperature and photosensitizers. Copper, iron, nickel, cobalt, chromium and manganese are metals which accelerate the process, while tin and aluminum are inactive.

Copper in so low a concentration as two parts per million in the fat will cause rancidity, while 200 parts of tin or aluminum per million show no activity. For this reason vessels containing copper should not be used in the manufacture or cooking of edible products. Heavily tinned vessels are safe, but must be re-tinned frequently to keep the copper covered.

Light also speeds up the development of rancidity, and the change is not confined to that part of the light which is in the violet region of the spectrum. While it is true, Mr. Coe stated, that ultra-violet and violet light is the most active part of light, the blue, yellow and middle visible red also are rather effective. Other regions of the spectrum are of still less effect.

He reported some experimental results using equal intensities of light of different wave lengths. Under the conditions of his experiments, which involved cool temperatures, violet light gave rancidity in 73 days while the next most active wave length resulted in slight rancidity in the same time. Many of the less active bands gave rancidity at the end of 133 days, and the least active parts of light resulted in slight rancidity.

He recommended the exclusion of all light during the storing of fats. This procedure would make it impossible to display adequately fats and oils, but safety lies in providing protection from light.

USE OF ANTIOXIDANTS

H. S. Olcott of the Mellon Institute of Research talked about "Antioxidants for Fats and Oils." Various chemical substances are being tried out as preventatives of rancidity in fats, and several patents covering the use of specific antioxidants have been granted by the U. S. Patent Office.

Antioxidants are substances which, when used in relatively small amounts, prolong the induction period and so delay rancidity. Some research reported by Dr. Mattill in 1924 showed that when lard was added as one of the ingredients of a mixture used to feed laboratory animals, the diet became deficient in vitamin E. Further work demonstrated, on the other hand, that when a good source of vitamin E was added in sufficient quantity to the diet, its stability toward oxidation was increased.

Mr. Olcott then reported a study of the effects of antioxidants on the absorption of oxygen when lard was stored at 75 degs. C. About 0.02 per cent of various inhibitors was used in the lard. A most active group of antioxidants were those products known to the chemist as polyphenols. It was shown that pyrogallol, hydroquinone, catechol, apinol and hydroxy hydroquinone were most active as antioxidants, while resorcinol and phloroglucinol were much less effective.

It seems that the hydroxyl group (OH) must be uncombined and attached directly to an aromatic ring in order to exert its effectiveness. In the case of benzene, two or more OH groups are required. Some fifteen phenolic compounds were studied, and it was found that the most easily oxidized ones were the most effective antioxidants. The meat packer will balk at reading the above jaw-breaking names, but his chemist may well get an idea about antioxidants for lard from this list.

It was of interest to find that the tocopherols (the vitamin E group) were good antioxidants. Other types of products were also studied. Among these were acids. Most mineral acids were shown by this study to be ineffective, but sulphuric acid and phosphoric acid were good inhibitors in the case of such vegetable oils and fats as cottonseed oil and its products. The group referred to in the above paragraph, called "inhibitors" by Mr. Olcott, were good inhibitors for lard but not for vegetable fats and oils. Certain organic acids were also effective inhibitors of rancidity. Among these was vitamin C (known as ascorbic acid.)

Lecithin and cephalin were also found to be active antioxidants. These are animal products, and nervous tissues such as brains and spinal cord are fairly rich in them. Their activity is partly due to the phosphoric acid contained as part of their molecules.

A third type of antioxidant was also discussed. One interesting fact brought out was the augmenting effect of two different types of antioxidant when used together. Thus, when an inhibitor was used with an acid type, the antioxidative effect was greater than that shown by adding the individual effects of the two products. One promoted the other. Thus ascorbic acid (vitamin C) and alphanatocopherol (vitamin E) could be used together as antioxidants with telling effect.

Mr. Olcott then spoke about various patents covering the use of antioxidants in fats. The old patent of Bollman used lecithin. Other patents dealt with the use of cephalin or various parts of its complex molecule. Still others used gum guaiac. Some fifty Musher patents rely on such products as specially prepared oatflour (Avenex) for their potency. Cereal and other seeds have been studied, but there is still opportunity for much work in this field.

Mr. Olcott did not refer directly to a new type of bland lard now being experimentally marketed by a meat pack-

(Continued on page 32.)



Stainless Steel Has Many Unique, Useful Properties

PACKERS and meat plant engineers and master mechanics are well aware of the corrosion-resisting qualities of stainless steel; they specify this alloy for tables, benches, equipment and utensils which must be kept spotlessly clean, or which are subjected to corrosive influences.

However, many may not know that stainless steel has qualities, in addition to corrosion resistance, which make it an ideal substitute for black and wrought iron, steel and cast iron for many packinghouse purposes.

The qualities of stainless steel, and its uses and advantages in industrial plants, are enumerated in Volume 6, Number 2 of *Chemical Digest*, published by Foster D. Snell, Inc., chemical engineers of Brooklyn, N. Y.

Stainless steel is much more than a corrosion-resistant metal, the article says. Although it is featured for its resistance to rust and other forms of corrosion, its present extensive use is based on more than its stainlessness.

Other Valuable Properties

Gold is immune to most forms of corrosion, but if gold were as inexpensive as stainless steel, it still would not and could not be used in many of the applications for which stainless steel is specified. Stainless steel has a combination of desirable properties not equaled by gold, by ordinary steel or by any of the other familiar metals.

In addition to its resistance to oxidation and corrosion, stainless steel has strength and toughness at high temperatures; it is wear-resistant; it can be polished to a bright luster; and it has interesting optical and magnetic properties—a wealth of features fully as important as chemical resistance. Stainless steel is one of the most useful alloys ever developed for industry.

The high strength-weight ratio of stainless steel is a feature which ac-

counts for a majority of its applications. Stainless is a rather dense metal, having a higher specific gravity than many common non-ferrous metals, which it exceeds in strength. This is one of the reasons why stainless steel is now used in lightweight streamlined trains and airplanes. It can be formed into thin-walled, box-type beams which have great structural strength and rigidity. Stainless steel is also being used more and more in truck bodies. The satisfactory results obtained in welding this material have also led to extensive use in vehicle construction.

Architectural Applications

Architecture is another field in which the high strength-weight ratio of stainless steel is important. One interesting example of such use is a stainless steel fire escape on the front of a business building; not only does the fire escape present an attractive appearance, but its strength is permanent since it will not be weakened by corrosion.

Favorable strength-weight ratio per-

mits use of pleasing design; no cumbersome members are required. Thin-walled stainless steel members are also found useful for flag poles and ship masts. Additional marine applications, requiring resistance to corrosion coupled with unusual strength, include propellers, cables and anchors.

In many instances stainless steel has been selected as much for its strength and toughness as for its rust-defying permanence. For example, it is used in bank vault construction where, in addition to its attractive appearance and ease of maintenance, it is a reliable material for protecting the valuables in the vault. It has the interesting property of "work hardening," which helps it to resist the burglar's drill and hack saw.

In a contrasting field, stainless steel is used in the baskets of centrifuges. The perforated barrel unit of the centrifuge revolves at high speed and utilizes centrifugal force to filter liquids through the perforations. In this separation of liquids from solids, the centrifugal force of the solid matter against the wall of the revolving container may exceed many hundreds of pounds per square inch. The ruggedness of stainless steel is as valuable as its inherent resistance to corrosion for such applications.

The property of resistance to severe abrasive action is well illustrated by the use of stainless steel studs as road markers—the type used to indicate pedestrian lanes and the crowns of highways. Studs remain bright and visible, even on routes subjected to continuous heavy trucking.

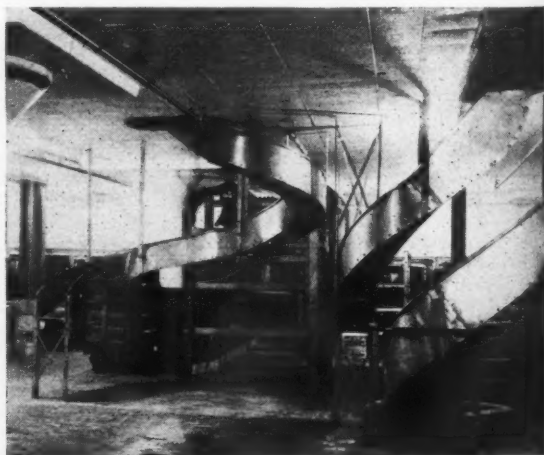
One of the common miscellaneous uses of stainless steel is in hangers for ventilating ducts or pipes. Consideration must be given to heat resistance in the selection of hangers, since some pipe hangers, or anchors, must be capable of resisting temperatures of over 1,000 degs. F. Provision must sometimes be made against attack by corrosive agents associated with the operation of particular plants, as in the process industries.

Ordinary steels are likely to lose their strength at high temperatures, and plain cast iron becomes subject to a deformation known as "growth." Stainless steel is also an excellent material for high-

(Continued on page 32.)

STAINLESS STEEL CHUTES

The meat packing industry puts gravity to work wherever possible for moving products from one floor level to a lower one. Most of the straight and spiral chutes in use in meat packing and sausage manufacturing plants are fabricated of stainless steel.

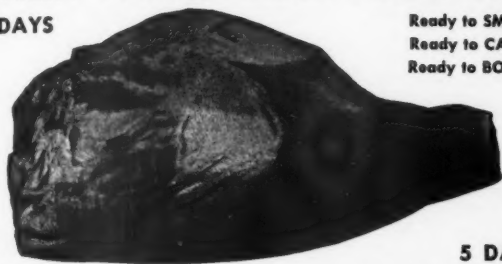


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HOW TO EQUIP AND OPERATE ROOM IN THE TYPICAL

The first aid room in the small meat plant need not possess such complete facilities as are pictured here. A simple set-up will do the job.

EQUIPMENT and maintenance of packinghouse first aid rooms and departments follow, in general, along lines governed by the size of the plant. The large packers, for the most part, are found to possess complete and extensive equipment and personnel.

In the small plant there is less of a general standard for first aid facilities. This is not to say that the small packer fails to recognize the importance of employe welfare; it is due, in general, to the fact that small packinghouses have fewer serious accidents to dramatize continually the need for first aid equipment.

However, because there are fewer cases of a serious nature, the statistics showing the high frequency of "minor" accidents in small plants, and the absolute importance of these small accidents, should not be ignored. These "minor" injuries are the enemy of efficiency and cost the packing industry untold sums each year in lost labor time and compensation claims. For every industrial accident serious enough to cause a loss of time beyond the shift in which the accident occurs, there are about 300 "no time lost" injuries.

Disabilities Can Be Stopped

It is this "minor" type of accident which furnishes the danger of temporary disability through infections, etc., and it is this type of accident which can be controlled, as far as later complications are concerned, through a first aid department. In the years since the advent of workmen's compensation laws, this factor has become doubly important, especially in those states having experience ratings.

A number of state labor laws contain provisions governing the minimum first aid facilities to be maintained in industrial establishments. In a majority of these state laws there is little of a concrete nature beyond a statement that first aid shall be administered to injured workers. While some states have specific requirements for certain industries, in no case is there specific mention of

the packing industry. It is covered by some state acts, however, which require all manufacturing concerns having more than five employees using power machinery to conform to certain standards set by the state industrial commissions.

The actual requirements for a first aid set-up are governed by such factors as the number of people to be served by the department, the frequency of injuries, the extent of services contemplated and the availability of supplemental medical aid. It is wholly possible for a small plant to possess a good first aid service without high cost, but there are very practical considerations which show the wisdom of limiting activities of a small plant's first aid department to the elementary first aid functions.

Room and Materials Needed

It has been found by the Metropolitan Life Insurance Co., after a survey of industrial first aid systems, that the department should have rooms with an area of at least 100 sq. ft. and preferably 200 sq. ft. The room should be centrally located so that all departments are within the shortest possible distance from it and, if possible, it should have quiet and privacy.

The room should have hot and cold running water, electrical outlets, and good illumination, both natural and artificial. The floor should be of some impervious material and the walls should be covered with material which will stand frequent cleaning. It is evident from this description that the cost

of the room is small and can be provided by any meat packing plant employing 100 or more people.

The actual equipment of the room should be as simple as possible and yet be adequate for any demand which might be made upon it. Such simplicity contributes greatly to maintaining order and cleanliness and holds the original cost down to a nominal figure.

Sample lists of minimum materials required for use in small first aid units, and supplemental material to be added by plants employing several hundred persons, are as follows:

An enameled or wooden dressing table.

Two metal or wooden chairs or stools.
A covered waste pail for discharged dressings.

Two enameled metal surgical basins.
A firm couch covered with washable material.

Two blankets, preferably dark.
A pillow with rubber cover.
Towels, soap.

A deep sink; preferably of vitreous porcelain with chromium fittings.

A first aid cabinet containing: tincture of iodine, metaphine, or methylate; bandages and sterile dressings; finger dressings, 1/2-in. compresses; 3-in. compresses, a few 4-by-6-in. compresses; assorted bandages of various widths; tourniquets; aromatic spirits of ammonia, and adhesive and safety pins.

The additional equipment needed for a larger plant's first aid unit is as follows:

A small sterilizer, gas or electric.
Various sterilizing solutions and drugs to be selected by a competent physician.

A few surgical instruments, also to be selected by the physician.

White cabinet for dressings and instruments.

One or more portable screens. This item is required when both sexes are

PLANT

Name..... No.....

Address

Date..... Injury..... Treatment..... By*

*Initials of attendant.

SAMPLE FIRST AID RECORD FORM

Shown here is a suggested first aid record form planned by the Metropolitan Life Insurance Co. This form assures adequate information for compensation case records and furnishes enough information for future treatment.

A FIRST AID PACKINGHOUSE

likely to be treated in the same room.

Soaking tanks and basins.

Chairs for waiting room.

Desks and file.

In a small plant it is hardly practicable to employ a registered nurse full time, or even a full time, trained first aid assistant. In such a case it is advisable to select a member of the plant personnel for training which may be offered by the local Red Cross chapter. In communities where this training is not given by the local Red Cross, a physician can furnish the education required. The American College of Surgeons, through its Chicago office, from time to time publishes material on industrial medicine which may be of aid to the plant first aid department.

The states impose restrictions upon the practice of surgery and medicine. Though the medical practice acts vary in wording and intent, broadly speaking, they prohibit anyone other than a licensed physician from rendering medical or surgical service, except in an emergency.

Complete Records Are Vital

In packinghouse first aid it is well to remember that the definition of the word, first aid, should be literal. In routine cases, nurses should not attempt to do work which should be done by a physician. This includes setting fractures, cleaning serious wounds and the administration of drugs. For this reason, every meat packing company which has a first aid department should make an arrangement with a physician so that he is available at all times.

A complete record should be made of every call which comes into the packinghouse first aid department. The record should include the date, the name and number of the employee and a complete history of the accident. This record can be used by the plant safety body in analyzing the accident and planning the proper preventive measures. Since the adoption of state compensation laws this record system is doubly important to the plant management. It assures the availability of complete, unbiased records in a disputed case.

An auxiliary service which is often delegated to the packinghouse first aid department, when it has a full time staff, is the checking of all laborers reported as sick. These plants require that every laborer contact the plant on the morning of any day on which he is unable to work. His reason is listed and the case is given to the first aid department. At some time during the day, the nurse or doctor calls at the employee's home and checks his case. In this way the worker is given competent medical advice which he otherwise

might not receive. Any tendency toward hypochondria is also checked. At a midwestern plant it has been estimated that absence from work has been cut at least 30 per cent by this procedure.

One of the big problems after the establishment of a regular first aid department is to get all employees to report with any injury, immediately, no matter how trivial it may be. In some cases the foremen are loath to excuse men because of time lost; in other cases the employee tries to avoid the trip to the first aid room.

It is simple enough to create a cooperative attitude among the foremen by establishing a first aid department capable of handling cases in a rapid, efficient manner and by showing the foremen that it is better to lose a few hours during the shift, than to lose whole days in the future due to infection or other complications.

Getting the men to report is a different problem and the burden usually falls upon the personnel of the first aid room. If the men are treated with respect by cheerful nurses and doctors, and are furnished with comfortable waiting facilities, this problem can usually be eliminated. In some instances, contests have been started among the departments with prizes for the one having the smallest number of work days lost through injuries. This has a double action; not only will there be self-policing among the men to see that all injuries are reported and treated, but there will also be a surprising response to safety suggestions.

It has also been found desirable to remove all first aid materials, such as bandages, iodine and tape, from the plant proper. This prevents handling wounds with dirty, greasy hands.

ONE PACKER'S EQUIPMENT

This first aid room at the Kingan & Co. plant, Indianapolis, has all necessary material to treat the average injury. As can be seen, it has helped to establish an enviable plant safety record. Even though a meat plant may have few or no major accidents, the first aid room can control and lessen the possible seriousness of the many cuts, scratches, bruises and other minor injuries which are almost inseparable from work of a manual nature.



EXPORT PACKING HANDBOOK

A new handbook entitled "Modern Export Packing" has been prepared by the Bureau of Foreign and Domestic Commerce, U. S. Department of Commerce. It presents the results of a nation-wide survey and provides a comprehensive description of current export packing methods. Subjects covered:

Containers and their construction and suitability for different products; latest methods developed for safe packing of foods and other commodities; packing to obtain lowest possible customs duties; marks of origin; methods of protection against pilferage, mildew, corrosion, etc.

The commodity packing sections have been prepared with the cooperation of the country's most experienced shippers, exporters, and packing engineers.

NEW PUNCH IN LINDNER ADS

The distinctive comic-silhouette advertisements successfully used by Lindner Packing & Provision Co., Denver, in recent months to influence both the consumer and retailer in favor of the company's sausage items, now carry an added punch contributed by photos showing the product in use in the home.

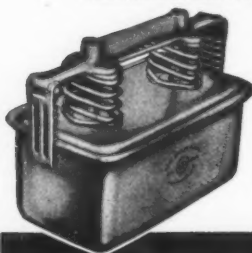
In a current ad for Lindner's braunschweiger, an illustration of a woman's hands, slicing the braunschweiger, is shown, with attention directed to the photograph by a pointing comic silhouette. Taking its cue from present interest in political events, the headline reads: "We point with pride to Lindner's braunschweiger!"

The ad reminds readers that "some like it hot," and gives instructions for pan-frying the product.

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It's the ADELMANN results-in-operation that keep ham makers from coast to coast "sold" on Adelmann Ham Boilers. They're simple to operate, easy to handle, of rugged construction, designed for long service. Elliptical springs close aitch-bone cavity firmly, the non-tilting, self-sealing cover retains ham juices, shrinkage and operating time are greatly reduced. Made of Cast Aluminum, Tinned Steel, Monel Metal, and Nirosta (Stainless) Steel, the most complete line available. It will pay you to investigate the Adelmann ham boiler—"The Kind Your Ham Makers Prefer!" Write!



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European Representatives: R. W. Bollans & Co., 6 Stanley St., Liverpool & 12 Bow Lane, London—Australian and New Zealand Representatives: Gallin & Co., Pty. Ltd., Offices in Principal Cities—Canadian Representative: C. A. Pemberton & Co., Ltd., 189 Church St., Toronto

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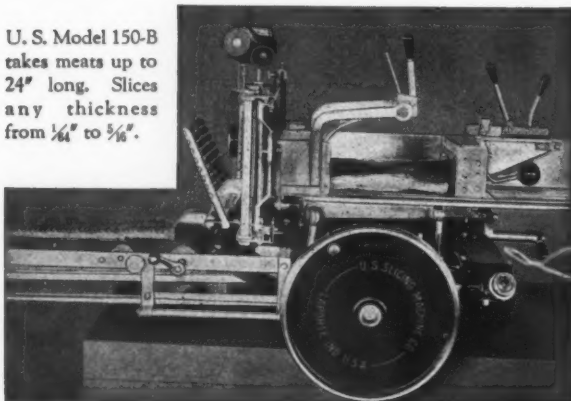
You can slice and shingle right onto the conveyor or stack slices on trays, without re-setting machine or handling food or slices from start to finish. Plugs in any electric socket. Equipped with $\frac{1}{4}$ H. P. motor.

Literature with complete details on request

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CLEVELAND, OHIO

PLANT OPERATIONS

Ideas for Operating Men

PAINTING COLD WATER PIPE

Meat plant engineers and master mechanics frequently seek information on the best method of painting pipe, particularly cold water pipe. One difficulty lies in the fact that it is almost impossible to take the pipe out of service long enough to dry the condensed moisture on it. Wiping the metal with rags is seldom satisfactory.

The following method of painting cold water pipe, as employed in the plant of the New Jersey Zinc Co., is described in a recent issue of *Paint Progress*, published by the firm. Meat plant maintenance men might experiment with the method.

The surface is prepared for painting by removing the loose paint and scale by wire brushing and scraping. The dirt and excess moisture are then wiped off the surface and a liberal coating of turpentine is applied.

The turpentine has a two-fold effect: first, to replace the water remaining on the surface, by virtue of its preferential wetting property, and second, to "lift" any loose rust scale remaining on the surface after the mechanical cleaning. A primer coat of standard zinc dust-zinc oxide paint is then applied directly on the turpentine wet surface, thus providing the necessary rust inhibitive coating. In actual practice, a considerable interval may be allowed between the application of the turpentine and the primer, since the turpentine prevents further condensation of water on the steel.

Brush application of the primer is preferred to spray application, since it insures the intimate contact of the zinc dust with the surface. An 80:20 zinc dust-zinc oxide formula, with a linseed oil vehicle has been used, but a synthetic vehicle, such as a phenolic, may be preferable, first, because of the more rapid drying of the synthetic resin formulation, and second, because of the improved water resistance of the film.

The usual drying interval is allowed after which the finish coat paint is applied. Just before application of the second coat, the moist surface is again wiped with turpentine, but care must be taken to avoid an excess of the turpentine, since it might soften the surface of the primer.

Either an 80:20 zinc dust-zinc oxide paint or other suitable metal paint may be used as the finish coat. Colored zinc dust paints are available for finishing coats where a distinctive color scheme is desired.

It has been found that kerosene may be substituted for turpentine to replace moisture on the pipes, but its action is much slower and its assimilation into the paint less positive.

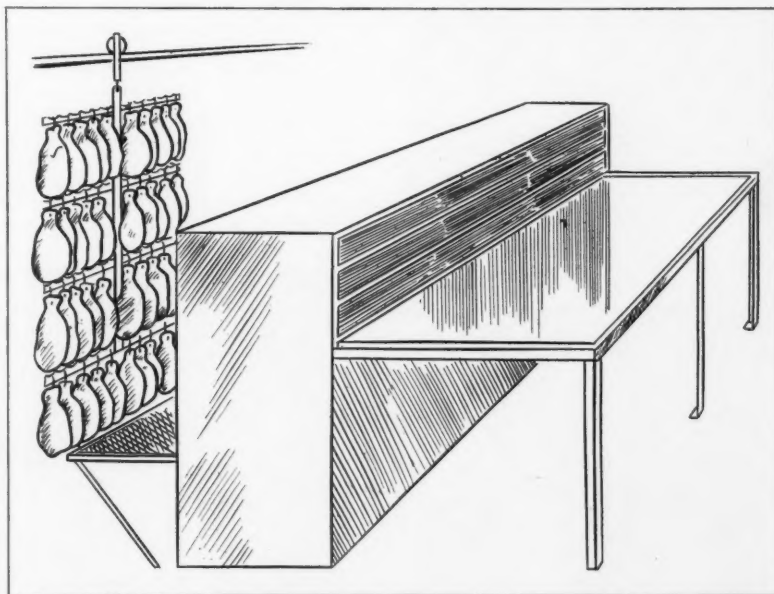
HAM WRAPPING TABLE

A table for simplifying ham testing and wrapping, suggested by an eastern meat packer, is shown in the accompanying sketch. It is designed to reduce the handling of hams after testing and before wrapping, and locate the wrapping materials where they are most convenient for the wrappers.

It is intended that the table shall be placed adjacent to the overhead rail on which the cages of smoked hams are brought into the wrapping room. The tester stands on a platform and may test the hams while they are hanging on the cage. After a ham is tested, it is removed from the cage and placed on table within easy reach of wrappers.

A supply of wrapping material is stacked on shelves directly in front of the wrappers. If two wraps are used—parchment and transparent cellulose, for example—the material forming the outer wrap should be placed on the lower shelf and the other on the shelf above. The sheets are then in position to be pulled onto the table in order and with the least loss of time.

The sketch is not drawn to scale. Packers who see merit in this piece of equipment, and who might desire to construct such a table, should determine carefully just what the various dimensions should be. The paper compartment, in particular, should be no higher than necessary, and the wrapping table should be no wider than needed to hold the largest size wrapper used.



DESIGNED TO SPEED UP HAM TESTING AND WRAPPING

PUMP SUCTION GAUGE

A pressure gauge is usually installed in the discharge line of a centrifugal pump. This gauge indicates the ability of the pump to perform up to its head or, when throttled, to raise a liquid to a predetermined height.

Equally valuable information may be obtained when a gauge is installed in the suction line. Such a gauge shows whether or not the liquid flows to the pump as fast as it is discharged, indicates the possibility of air binding and gives a definite idea as to the possibility of eliminating fittings or enlarging the suction line. All of this information is necessary to operate the pump with the lowest power cost. The suction gauge can be placed in the cylinder casing where facilities for this purpose are provided by the pump manufacturer.

If more than one pump is used for a particular pumping job it is advisable to have a separate suction line for each pump. In this case gauges are required to determine whether each pump is doing its share of the work. A pressure gauge is used in the discharge line. A compound gauge—one which measures both pressure and vacuum—is installed on the suction side.

NEW RAT CONTROL METHOD

Packinghouses experiencing trouble with rat control will be interested in learning the method used by one middle-western packer to cut off the rodents from their breeding grounds.

A small ($\frac{1}{8}$ in.) pipe is installed above every opening that the rodents might use for nesting or moving from one room to the other and connected with the steam mains. This method has been found highly efficient in bringing about a decrease in the number of rats.

Up and down the MEAT TRAIL

Wm. J. Wilson to Retire After 38 Years Service

William J. Wilson, supervisor of the lamb division at the United Dressed Beef Co., New York City, subsidiary of Swift & Company, will retire November 2 after having been associated with the



WILLIAM J. WILSON

meat packing industry for 38 years. He will be tendered a testimonial dinner by his friends and associates at the Commodore hotel on October 29.

In 1902, his meat packing career started when he went to work for the G. H. Hammond Co. on the sheep and lamb killing floor. When G. H. Hammond Co. moved to Chicago in 1903, Mr. Wilson was placed in charge of the sheep and lamb coolers.

The small stock business claimed his services shortly after, and he was transferred to the general office. In 1913 he made another move, this time to the Swift & Company general office. From 1913 to 1925 he traveled extensively, visiting most of Swift & Company's branch houses. In recognition of his fine

work in the field, he was rewarded with the managership of Sturtevant and Haley Co., at Somerville, Mass. In 1932 he was transferred to the United Dressed Beef Co., to supervise the lamb business of the United and its associated plants.

Following his retirement, he plans to drive to Florida, where he will spend the winter. After that he is considering managership of a 160-acre farm in Wisconsin.

British Refugee Children Guests at Swift Exhibit

Fifty-four British refugee children followed the example of their King and Queen when they took part in an American "red hot" roast and picnic held in their honor recently at the Swift exhibit at the New York World's Fair. It was the first time any of the children had ever eaten grilled frankfurts.

Accompanied by their nurses, teachers and a group of British and American notables, who are sponsoring their stay in this country, the English youngsters were served "red hots," sandwiches and hot chocolate on the lawn of the exhibit. Three outdoor grills were used to prepare more than 450 frankfurts.

All the youngsters, ranging in age from six to sixteen years were dressed in uniforms of navy blue overcoats, dresses and berets for the girls and blue overcoats, grey suits and school caps for the boys. They are from the British Actors Orphanage, established in Surrey, England, nearly 40 years ago for orphan children whose parents were formerly on the stage. The orphanage was completely evacuated when the bombardment of England began.

With the children at the picnic were: Constance Collier, Paulette Goddard, Mrs. Vincent Sheean and Mrs. Douglas Fairbanks, Jr. At present all the children are quartered in the Edwin Gould Foundation in New York City.

Morrell Gives Paintings to Iowa State College

A group of 12 original oil paintings which portray scenes from American history were recently presented to Iowa State college, Ames, Ia., by John Morrell & Co., Ottumwa, Ia. Painted by N. C. Wyeth, outstanding American painter, illustrator and muralist, they were created expressly to illustrate a calendar distributed by the company this year.

Events depicted in this group of paintings, known as "America in the Making," are dramatic episodes in American history. The events, settings and customs are considered authentic. After a preliminary showing in the Memorial Union, the paintings will hang in Beardshear Hall, it was announced by Dr. Charles E. Friley, college president.

Monroe Washer, Prominent Provision Merchant, Dies

Monroe Washer, president of John Thallon & Co., New York provision firm, and a member of the New York Produce Exchange, died recently at his home. He was 61 years old and had been connected with the provision trade for over 40 years.

Mr. Washer began his career with the Co-operative Wholesale Society, but later joined the firm of John Thallon, one of the oldest provision companies in New York. He specialized in the butter market at first, but later became interested in lard and meats. He was made president of the firm in 1913 and served

ENJOY AMERICAN HOT DOGS

LEFT.—Paulette Goddard, movie actress, shows four English children how "red hots" are broiled over a charcoal grill.

CENTER.—Jason Halliwell, nine years old, preparing to take a big bite.

RIGHT.—English children eating frankfurts and Prem sandwiches after inspecting the Swift exhibit at the New York fair.



in that capacity until his recent death.

During the last World War, he sold large quantities of provisions to the Allies and was a buying agent for the British government here. He was the first to introduce canned Danish hams in the United States and later imported large quantities of Polish canned meat products.

He is survived by his son, Sidney M. Washer, who assumes the presidency of the firm. He has been associated with his father for the past 10 years.

Personalities and Events Of the Week

President John W. Rath, and Ray Paul, livestock department, Rath Packing Co., Waterloo, Ia., were visitors in New York recently.

A. G. Versen, smoked meats department, and J. J. Madigan, provision department, Armour and Company, Chicago, visited in New York last week.

William Hassel, president of Chicago Butchers Calfskin Association since its organization in June, 1920, died suddenly on October 20. Funeral services were held on October 23, with interment in Mount Olive cemetery. He is survived by his widow and three daughters. Mr. Hassel was born in Batavia, Ill., but lived the greater part of his life in Chicago, where he had a very wide acquaintance among the industry.

Frank A. Robbins, who recently resigned as manager of the glue department of Cudahy Packing Co., Chicago, after 20 years in the by-products department, has been elected to the board of directors and made vice president of Theonett & Co., Inc., 2113-2121 Elston ave., Chicago, a long-established firm in the flavor and extract business.

E. H. Berky, formerly with the Albany Packing Co., Albany, N. Y., and also former assistant marketing specialist of the U. S. Department of Agricultural Economics, has been appointed Pittsburgh sales manager of the Dunlevy division of Hygrade Food Products Corp. He will share responsibilities with R. F. Sullivan.

Charles C. Eikel, Donald W. King, F. A. Lindberg and E. E. Evans of Armour and Company, Chicago, visited W. M. Carter of the Pittsburgh Provision & Packing Co. last week.

A new dry rendering plant costing approximately \$11,000 has been constructed by the Cornelius Bros. Packing Co., Los Angeles, Calif. All equipment was installed under the direction of C. L. Eshleman, chief engineer. The unit will adjoin the company's main packing plant.

Petitions asking a meat inspection ordinance and appointment of a meat inspector are being circulated by members of the Albuquerque, N. M., Junior Chamber of Commerce.

Louis Unzelman was recently elected president of the newly formed Wash-

ington State Retail Grocers and Meat Dealers Association. The new organization resulted from consolidation of the Seattle Retail Meat Dealers Association, the Seattle Retail Grocers Association and the Washington Merchants Association.

Oscar E. Meyer, partner in Henry Meyer's Sons, packers of Covington, Ky., died recently after an illness of several months. Mr. Meyer operated the business, which was established by his father more than a half a century ago, with his brother, Robert N. Meyer. He was 55 years old.

His many friends in the trade will be interested to know that John Stout, manager, beef department, New York branch, Rath Packing Co., has left the hospital where he recently underwent an operation, and is now recuperating at his home. He is expected to return to his duties very shortly.



NEWLY APPOINTED SUPERIN- TENDENT

Albert F. Schultz was recently appointed general superintendent of Fried & Reineman Packing Co., Pittsburgh, Pa.

Herman A. Schmidt, manager beef department, New York Butchers Dressed Meat Co., is spending his vacation visiting the cattle sections of Maryland.

William G. Meilinger, owner of a chain of retail markets in Chicago, died suddenly this week. He was the son of the late Joseph T. Meilinger, founder of the markets. A wife and two children survive.

F. W. Gage, provision manager at the Plankinton Packing Co., Milwaukee, Wis., for the past ten years, has been appointed to a similar position with the St. Louis-Independent Packing Co., St. Louis, Mo. R. L. Ward, Baltimore, Md., will replace Mr. Gage, according to E. G. Six, president and general manager of the Milwaukee firm.

E. W. Phelps, general manager of the Swift & Company plant, Kansas City, Kans., has been elected a director of the Chamber of Commerce of that city.

R. G. Howard has been appointed sales manager of the Swift & Company branch house at Hazelton, Pa. Mr. Howard has been with the company since 1933 and came to Hazelton from Wilkes-Barre, Pa., in 1935. He succeeds H. Case.

Christian Heller, formerly connected with the Jacob Dold Packing Co., Buffalo, N. Y., and operator of a meat market in Buffalo, died recently. He was 53 years old.

Robert M. Owthwaite, general man-

ager of John Morrell & Co., has been appointed Kansas chairman of National Art Fair week, which will be held throughout the nation from November 25 to December 1.

A new all-pork luncheon meat has been placed on the market by Oswald & Hess Co., Inc., Pittsburgh, Pa. The new product is being sold under the trade name of "Zest."

Luigi D'Angelo, veteran Utica, N. Y., meat dealer, died recently after a brief illness. Mr. D'Angelo had been in the wholesale meat business for a period of 40 years.

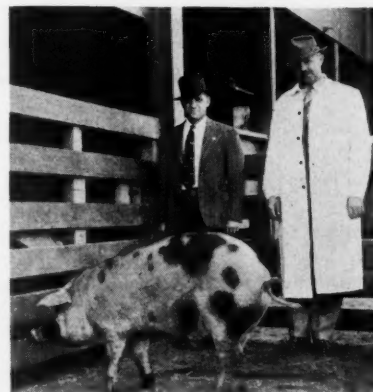
Ben H. Garton and Rollie R. Graham have purchased the interest of Mrs. Kate Kaufman in the Graham Sausage Co., Decatur, Ill.

George Hagerty, veteran employe at the Swift & Company plant, St. Paul, Minn., retired recently after 37 years in the meat industry. Mr. Hagerty joined the firm as a steam fitter in 1903. Fifteen years ago he was appointed to the general office engineering staff, a position he held until his retirement.

Campbell Wallace Mickelberry, son of the late founder of the Mickelberry Sausage Co., Chicago, died recently in St. Francis hospital, Blue Island, Ill. He was 58 years old.

Citizens of Joliet, Ill., recently attended an open house celebration at the Cudahy Packing Co. branch house to commemorate the fiftieth anniversary of the company. E. C. Burkhardt is manager of the branch, which has been in operation since 1898.

A new sliced bacon department was recently completed and put into use at the Sioux Falls plant of John Morrell & Co. The new department is equipped with three of the latest-model slicing machines, each capable of slicing 1,500 lbs. of bacon per hour.



MORRELL HOG NO. 1,000,000

With six weeks remaining before the end of its 1939-1940 fiscal year, the Sioux Falls plant of John Morrell & Co. recently slaughtered its millionth hog of the period. M. L. Green (left), hog buyer for the company, and C. I. Sall, plant superintendent, are shown as they viewed the animal. This is the first time since 1931 that the million mark has been attained at the plant.

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School of Refrigeration

Almost simultaneously with the appearance of the first article under the general head of "The National Provisioner's School of Refrigeration" in July, 1938, letters of commendation were received from packers, superintendents, master mechanics and engineers in all sections of the country. The course had hardly gotten under way before requests for reprints began to come in. These have continued in increasing numbers.

"Volume 1, Meat Plant Refrigeration and Air Conditioning" is THE NATIONAL PROVISIONER'S answer to this demand. The author of the articles and the man who revised the first thirty-seven lessons in the course is a meat plant engineer—an expert in packinghouse refrigerating problems.

The articles in this new volume appear in lesson form and are designed to enable those interested in meat plant operation, as well as refrigeration, to acquire a practical working knowledge of this basic subject as well as fundamental information essential to the worker who has ambitions beyond his present job.

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how it is measured.....	4
mechanical equivalent of.....	8
radiation of.....	7
removal during chilling.....	8
transfer of.....	7

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Questions and Answers

THIS group of questions and answers is designed to aid the student of THE NATIONAL PROVISIONER course in meat plant refrigeration and air conditioning in his review of important points in recent lessons. His ability to answer and understand the questions and answers should indicate to him whether he has successfully assimilated the lesson material.

1.—Where is an oil separator installed?

A.—In the hot gas discharge line.

2.—Where is the best place to drain oil from the system?

A.—The ammonia condensers.

3.—Name two systems of compression. What is the objection to the wet system?

A.—Wet and dry. The wet system is not considered economical.

4.—Where are purge valves installed?

A.—On the highest point on the ammonia condenser, except in the case of a shell and tube condenser, on which they are located one-third of the distance up from the bottom tube sheet.

5.—How is damage to the compressor prevented in case of zero clearance between piston and end of cylinder?

A.—A false head.

6.—At what speed should suction gas travel through the accumulator to insure that all liquid will be thrown out of the gas stream?

A.—Three hundred feet per minute.

7.—What causes bubbles to rise in an ammonia receiver gauge glass? Do these bubbles have any effect on the level of the ammonia in the glass?

A.—Bubbles form in the gauge glass when the temperature of the engine room is higher than the liquid ammonia in the receiver. The ammonia boils under such conditions. When the ammonia boils, the level in the gauge glass will be above the level of the ammonia in the receiver.

8.—What causes a sudden pound in an ammonia compressor operating at normal speed?

A.—Undigested liquid returning in the suction line, a piece of metal in the cylinder or a broken wedgebolt.

9.—Is the brine likely to find its way into the compressor when there is an ammonia leak in a brine tank?

A.—The brine might get into the direct expansion coil and be drawn into the compressor; however, the possibility is slight.

10.—If the gauge on an ammonia compressor, working on a common suction with other machines at 25 lbs. back pressure, suddenly indicated 5 lbs. suction pressure, what would be the reason?

A.—The trouble would probably be found at the suction stop valve. This valve may be closed by jarring.

11.—Why might an ammonia compressor run hot?

A.—Lack of sufficient lubricating oil,

hot suction gas or too high a compression ratio.

12.—When shutting down an ice machine to pack the rod, both suction and discharge valves are closed. If only one turn of the discharge valve handle can be made, what should be done?

A.—The next valve from the discharge valve should be closed and the compressor and the line from the compressor to the closed valve should be pumped out.

13.—How does air get into an ammonia compressor?

A.—During pump-out periods. It may also be drawn into the compressor through the rod packing or through minute openings between packing and rod. The catalytic action of oil and ammonia gas in the presence of iron generates a non-condensable gas.

14.—Why does the oil come out first when oil and water are drawn from an ammonia still?

A.—The oil floats on the water. A mixture of oil and water has lower specific gravity than a mixture of water and ammonia.

15.—What is the first step in putting an ammonia compressor back into service after it has been overhauled?

A.—Pump out the air.

16.—Why is it important to maintain an unvarying and uniform temperature in the curing cellar?

A.—Temperature influences the speed of cure; the higher the temperature, the faster meats cure. Temperature fluctuations result in product with varying degrees of cure.

17.—Are pipe coils or brine sprays more suitable for refrigerating carcass chill rooms? Why?

A.—Brine sprays are more suitable because they produce more uniform temperatures, speed up chilling and hold rooms in better condition.

18.—What is the advantage of a brine spray system for cutting floors?

A.—Higher relative humidity can be maintained and shrink reduced. Brine sprays also provide more comfortable working conditions. Employees should not work close to direct expansion coils.

19.—Why is sodium chloride used for open sprays in fresh meat coolers rather than calcium chloride?

A.—Calcium chloride leaves a white spot and a bitter taste if it comes in contact with fresh meat. Sodium chloride is also cheaper than calcium chloride.

20.—Why is rapid air circulation in coolers detrimental to carcasses?

A.—It causes high shrink and discoloration of the meat.

21.—What is the proper temperature



LOADING DRY-ICE BUNKER

One of a large new reefer fleet in packing-house service between midwestern points and the eastern seaboard taking on the single charge of Dry-Ice which refrigerates its load throughout the entire run. Trailer is a 3-in. insulated Fruehauf, 24 ft. long. (Photo by Pure Carbonic, Inc.)

for a sharp freezer? A storage freezer?

A.—A sharp freezer should be held at minus 15 degs. F. and a storage freezer at 10 to 15 degs. F.

22.—Why are meats not stored at sharp freezer temperature?

A.—It is expensive to maintain sharp freezer temperature and freezer burn (dehydration) is greater at minus 15 degs. F.

23.—What are the advantages of quick freezing?

A.—Meats frozen quickly at low temperatures shrink less and hold their color better.

24.—How does an increase in the specific gravity of the brine in an open spray system affect the meats?

A.—The higher the specific gravity of the brine, the more moisture the meats will lose.

25.—What are the advantages of anhydrous ammonia over other refrigerants?

A.—High latent heat and relatively low first cost.

26.—What is the cycle of anhydrous ammonia gas in an absorption refrigerating machine?

A.—The answer to this question is too lengthy to be given here. The subject is discussed in Lesson 13 of THE NATIONAL PROVISIONER course.

27.—How is the pressure drop in ammonia lines calculated?

A.—See Lesson 18 of THE NATIONAL PROVISIONER course.

28.—What is the boiling point of anhydrous ammonia?

A.—Boiling point varies with pressure.

29.—What are the advantages of brine refrigeration?

A.—It is never necessary to pump out the lines and there is considerable heat transfer to the coils after the brine pumps cease operating. Brine is safer than direct expansion.

30.—What amount of water is used over atmospheric and in shell and tube type ammonia condensers for 125 lbs. pressure?

A.—Water consumption of ammonia condensers is discussed in Lessons 47, 48 and 49 of THE NATIONAL PROVISIONER course.

BOOK REVIEWS

PROXIMATE COMPOSITION OF AMERICAN FOOD MATERIALS.—

Published by the U. S. Department of Agriculture as Circular No. 549, Washington, D. C., 1940. 92 pages; 5½ by 9½ in. Price 15 cents.

This pamphlet by Charlotte Chatfield and Georgian Adams of the Bureau of Home Economics is intended to fill the need for new tables giving the composition of many modern foods. It includes average figures for the composition of an extensive list of natural and processed foods of animal and plant origin, with much information on the sources, derivation, classification, and use of the data given. The meat packer will be interested in the figures for water, fat and ash contents and fuel values of the usual cuts of meat, and also in those for edible glands, various types of sausage, and other prepared meats.

THE CHEMICAL COMPOSITION OF FOODS.—

Published by the Chemical Publishing Co., Inc., New York City, 1940. 150 pages; 5½ by 8½ in. Price \$2.50.

Written by McCance and Widdowson of the University of Cambridge, England, this new book gives the chemical composition of 541 different foods used in that country. Raw and cooked and prepared foods are listed and recipes are given for many of the latter. Data are included on water, sugar, starch and dextrins, total nitrogen, protein, available carbohydrate, calories, sodium, potassium, calcium, magnesium, iron, copper, phosphorus, sulphur, chlorine and acid-base balance. In addition, two short sections supply figures on available phosphorus and iron. The groups of foods included are cereals and cereal foods, dairy products, meat, poultry and game, fish, fruit, nuts, vegetables, sugar, preserves, sweetmeats, beverages, beers, condiments, vegetable fats, cakes and pastries, puddings, meat and fish dishes, egg and cheese dishes, sauces and soups.

This book and the one reviewed above, should be of great interest to home economists, food chemists, and progressive meat packers.

PACKER AND FOOD STOCKS

Price ranges and total sales of listed stocks during the week ended October 23:

	—Week ended Oct. 23—				Oct. 16
	Sales	High	Low	Close	Close
Amal. Leather..	500	1½	1½	1½	1½
Do. Pfd.	500	17½	17½	17½	13½
Amer. H. & L..	2,100	4½	4½	4½	4
Do. Pfd.	900	31½	31½	31½	31½
Amer. Stores ..	900	11½	11½	11½	13
Armour Ill.	16,200	5½	5½	5½	4½
Do. Pr. Pfd. .	3,500	49½	48½	49½	45½
Do. Pfd. ....	.....	.....	.....	.....	64½
Do. Del. Pfd. .	400	100	100	100	107
Beechnut Pack. ....	.....	.....	.....	.....	116½
Boback, H. C. ....	.....	.....	.....	.....	2
Do. Pfd.	10	21½	21½	21½	18½
Chick. Co. Oil. .	900	11	11	11	11
Childs Co.	900	2½	2½	2½	2½
Cudahy Pack.	300	11½	11½	11½	11½
Do. Pfd.	50	68	68	68	65
First Nat. Strs. .	1,200	44	44	44	43½
Gen. Foods	7,100	38½	37½	37½	39½
Do. Pfd.	200	115½	115½	115½	114½
Glidden Co.	100	15	15	15	15½
Do. Pfd. ....	.....	.....	.....	.....	38
Gobel Co.	600	2½	2½	2½	2½
Gr. A & P.	175	100½	100½	100½	99
Hormel, G. A. ....	.....	.....	.....	.....	128
Hygrade Food. ....	.....	.....	.....	.....	31
Kroger G. & B. .	5,400	31½	31½	31½	32½
Libby McNeill. .	1,000	7	7	7	6½
Mickleberry Co. .	300	4½	4½	4½	4½
M. & H. Pfd.	180	7½	7½	7½	7½
Morrell & Co.	100	34	34	34	35
Nat. Tea	400	4½	4½	4½	5
Proc. & Gamb. .	4,600	60½	60	60½	61½
Do. Pfd.	20	116½	116	116	117
Rath Pack.	50	44	44	44	39½
Safeway Strs.	700	43½	43½	43½	43
Do. 5% Pfd. .	1,300	100	108¼	108¼	107¼
Stahl Meyer ....	.....	.....	.....	.....	1¼
Swift & Co.	9,500	21½	21	21½	20½
Do. Intl.	1,450	18½	18	18½	18
Trunz Pork ....	.....	.....	.....	.....	8½
U. S. Leather. .	1,700	5½	5	5½	4½
Do. Pfd.	2,000	9½	8½	9	8
Do. Pr. Pfd. ....	.....	.....	.....	.....	60
United Stk. Yds. .	1,200	1½	1½	1½	1½
Do. Pfd.	300	6½	6½	6½	6
Wesson Oil	200	17½	17½	17½	17½
Do. Pfd.	200	68½	68½	68½	68
Wilson & Co.	3,800	4½	4½	4½	4½
Do. Pfd.	300	61½	61½	61½	59½

CHAIN STORE SALES

Chain grocery store sales showed less than the usual seasonal rise in September, following a contra-seasonal gain in August, according to a statement issued by the U. S. Department of Commerce. The seasonal corrected index receded from 115 to 112 for September, representing a decrease of 2 per cent in average daily sales from August to September.

Jewel Tea Co., Inc., reports sales of \$2,366,139 for the four weeks ended October 5, an increase of 21 per cent over the same period last year. Sales for the first 40 weeks of 1940 rose 15.7 per cent to \$21,517,677.



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Volume of Processed Meat Output High in September

PRODUCTION of processed meats under federal inspection during September showed the usual seasonal declines, although production remained at a high level, compared with September in other years. Volume of sausage production during the month has been exceeded only once during the past twelve years—in September, 1936. Sliced bacon output, while declining seasonally from the previous month, was considerably above the level of September, 1939.

Quantity of meat food products canned during the month declined from the volume in August, and also fell below production in September, 1939. The decline was in canned soups and canned sausage. Total quantity of pork canned exceeded the amount for the same month last year.

Production of fresh sausage showed a seasonal increase, totaling 11,391,732 lbs. during September compared with 8,640,861 lbs. in August, 1940. This was almost 2 million lbs. over the quantity of fresh sausage produced in September, 1939. Smoked and cooked sausage output, while declining from the previous month, exceeded production during September, 1939.

Production of meat loaves in federally inspected plants during September was large, exceeding any other September of record, although it was just a little under August production. Sliced bacon output is also keeping to its high level; while showing some decline from August, it exceeded any September of record by several million lbs.

Sausage production under federal inspection during September:

	Sept., 1940 lbs.	Aug., 1940 lbs.	Sept., 1939 lbs.
Fresh (finished).....	11,391,732	8,640,861	9,749,426
Smoked and/or cooked	51,811,707	59,089,172	50,967,277
To be dried or semidried	9,335,363	11,582,352	9,373,905
Total	72,538,802	79,312,385	70,090,608

Volume of canned meat food products, sliced bacon and meat loaves produced during September, 1940, with comparisons:

	Sept., 1940 lbs.	Aug., 1940 lbs.	Sept., 1939 lbs.
Canned meat and meat food products:			
Beef	6,702,711	6,239,384	6,942,357
Pork	12,959,900	17,747,789	12,872,688
Sausage	2,691,970	2,554,292	3,312,623
Soup	1,450,390	3,427,206	4,111,487
All other	10,374,729	9,294,965	9,366,425
Total	34,179,700	39,263,636	36,605,580
Bacon:			
Sliced	28,227,275	30,898,065	24,802,723
Meat loaves:			
Headcheese, chili con carne, jellied products, etc.	10,303,783	10,343,854	9,869,473

Volume of sausage, canned meats, sliced bacon and meat loaves produced during the first three-fourths of 1940 and 1939 showed the cumulative figures reproduced at top of next column:

	9 mos. 1940 lbs.	9 mos. 1939 lbs.
Sausage—		
Fresh (finished)	93,241,000	78,363,000
Smoked and/or cooked	452,989,000	430,986,000
To be dried or semidried	90,844,000	85,489,000
Total	637,074,000	594,838,000
Canned meat and meat food products—		
Beef	52,740,000	51,800,000
Pork	213,809,000	144,490,000
Sausage	27,746,000	26,543,000
Soup	146,116,000	137,845,000
All other	86,732,000	60,890,000
Total	527,143,000	421,568,000
Bacon sliced	240,392,000	203,437,000
Meat loaves—		
Head cheese, chili con carne, jellied products, etc.	86,964,000	77,462,000

Total production of sausage under federal inspection during eleven months of the 1940 packer fiscal year, compared with production in 1939 and 1938:

	1940 lbs.	1939 lbs.	1938 lbs.
November	67,155,268	66,612,075	61,140,435
December	59,581,307	59,452,050	54,946,367
January	66,216,941	61,138,875	57,433,989
February	59,722,810	53,478,836	52,112,898
March	61,015,994	61,163,870	58,535,167
April	70,775,267	57,674,333	57,578,590
May	75,628,700	71,676,040	63,918,596
June	71,926,580	73,268,181	68,164,386
July	79,935,413	71,359,293	66,665,384
August	79,312,385	74,988,389	72,782,808
September	72,538,802	70,090,608	60,268,094
Total	763,809,467	720,902,349	682,547,014

Volume of sliced bacon during September declined seasonally from the preceding month, but showed an increase over that of the corresponding month in both 1939 and 1940. The cumulative total continued well in ad-

vance of that recorded during the same period of the two preceding years:

	1940 lbs.	1939 lbs.	1938 lbs.
November	22,908,197	19,967,669	16,800,154
December	22,336,794	18,607,520	17,381,833
January	24,778,179	19,860,787	17,271,741
February	21,755,898	18,169,033	16,390,822
March	23,306,006	20,783,982	18,604,313
April	26,593,341	19,982,489	19,028,679
May	26,857,536	23,214,142	20,632,082
June	27,450,204	24,547,610	21,344,488
July	30,525,151	24,651,037	21,601,392
August	30,898,065	27,289,035	23,058,673
September	28,227,275	24,928,665	22,951,296
Total	285,631,646	242,011,969	215,065,473

CANADIAN EXPORTS TO U. K.

Movement of Canadian bacon and hams to the United Kingdom has kept up at the rapid pace set at the outbreak of the war, under the special agreement with the British Ministry of Food. During September over 35 million lbs. of bacon and hams moved across the Atlantic, compared with 11 million lbs. in September a year ago. Total exports of bacon and ham this year to date are 249 million lbs., compared with about 120 million lbs. during the same period last year.

Exports of Canadian meats to the United Kingdom during the first nine months of 1940, compared with 1939:

	9 mos. 1940	9 mos. 1939
Beef	869,000	869,000
Bacon and hams	249,094,000	120,469,400
Pork	124,900	377,800
Canned meats	6,070,015	1,363,353
Lard	1,708,100	6,654,600
Lard compound	359,300	479,500

WANT A GOOD MAN?

Watch the Classified Advertisements page for good men.

HEAVY HOGS CONTINUE TO SHOW SOME IMPROVEMENT

Heavy hogs made the only improvement shown in cut-out results this week. Large hog supplies, compared with the previous week, brought a drop in hog costs and a slow live market. Drop in product values was most noticeable on cuts from light and medium butchers.

	Pct. live wt.	Price per lb.	Value per cwt. alive	Pct. live wt.	Price per lb.	Value per cwt. alive	Pct. live wt.	Price per lb.	Value per cwt. alive
—180-220 lbs.—									
Regular hams	14.00	12.5	\$1.75	13.80	12.7	\$1.75	13.70	13.0	\$1.78
Picnics	5.60	9.3	.52	5.40	9.2	.50	5.30	9.3	.49
Boston butts	4.00	12.6	.50	4.00	12.6	.50	4.00	12.3	.49
Loins (blade in)	9.80	14.5	1.42	9.60	14.3	1.37	9.50	13.8	1.31
Bellies, S. P.	11.00	10.3	1.13	9.70	10.5	1.02	8.00	10.7	.86
Bellies, D. S. ....	...	...	...	2.00	9.5	.19	4.00	9.5	.38
Fat backs	1.00	3.4	.04	3.00	4.0	.12	4.00	4.8	.19
Plates and jowls	2.50	4.9	.12	3.00	4.9	.15	3.40	4.9	.17
Raw leaf	2.10	4.4	.09	2.20	4.4	.10	2.00	4.4	.09
P. S. lard, rend, wt.	12.40	4.7	.58	11.00	4.7	.52	10.30	4.7	.48
Spareribs	1.60	11.5	.18	1.50	8.9	.13	1.50	7.5	.11
Trimnings	3.00	9.3	.28	2.80	9.3	.26	2.80	9.3	.26
Feet, tails, neckbones	2.00	...	.04	2.00	...	.04	2.00	...	.04
Offal and miscellaneous .....	...	...	.22	...	...	.22	...	...	.22
—220-240 lbs.—									
Regular hams	14.00	12.5	\$1.75	13.80	12.7	\$1.75	13.70	13.0	\$1.78
Picnics	5.60	9.3	.52	5.40	9.2	.50	5.30	9.3	.49
Boston butts	4.00	12.6	.50	4.00	12.6	.50	4.00	12.3	.49
Loins (blade in)	9.80	14.5	1.42	9.60	14.3	1.37	9.50	13.8	1.31
Bellies, S. P.	11.00	10.3	1.13	9.70	10.5	1.02	8.00	10.7	.86
Bellies, D. S. ....	...	...	...	2.00	9.5	.19	4.00	9.5	.38
Fat backs	1.00	3.4	.04	3.00	4.0	.12	4.00	4.8	.19
Plates and jowls	2.50	4.9	.12	3.00	4.9	.15	3.40	4.9	.17
Raw leaf	2.10	4.4	.09	2.20	4.4	.10	2.00	4.4	.09
P. S. lard, rend, wt.	12.40	4.7	.58	11.00	4.7	.52	10.30	4.7	.48
Spareribs	1.60	11.5	.18	1.50	8.9	.13	1.50	7.5	.11
Trimnings	3.00	9.3	.28	2.80	9.3	.26	2.80	9.3	.26
Feet, tails, neckbones	2.00	...	.04	2.00	...	.04	2.00	...	.04
Offal and miscellaneous .....	...	...	.22	...	...	.22	...	...	.22
—240-270 lbs.—									
Regular hams	14.00	12.5	\$1.75	13.80	12.7	\$1.75	13.70	13.0	\$1.78
Picnics	5.60	9.3	.52	5.40	9.2	.50	5.30	9.3	.49
Boston butts	4.00	12.6	.50	4.00	12.6	.50	4.00	12.3	.49
Loins (blade in)	9.80	14.5	1.42	9.60	14.3	1.37	9.50	13.8	1.31
Bellies, S. P.	11.00	10.3	1.13	9.70	10.5	1.02	8.00	10.7	.86
Bellies, D. S. ....	...	...	...	2.00	9.5	.19	4.00	9.5	.38
Fat backs	1.00	3.4	.04	3.00	4.0	.12	4.00	4.8	.19
Plates and jowls	2.50	4.9	.12	3.00	4.9	.15	3.40	4.9	.17
Raw leaf	2.10	4.4	.09	2.20	4.4	.10	2.00	4.4	.09
P. S. lard, rend, wt.	12.40	4.7	.58	11.00	4.7	.52	10.30	4.7	.48
Spareribs	1.60	11.5	.18	1.50	8.9	.13	1.50	7.5	.11
Trimnings	3.00	9.3	.28	2.80	9.3	.26	2.80	9.3	.26
Feet, tails, neckbones	2.00	...	.04	2.00	...	.04	2.00	...	.04
Offal and miscellaneous .....	...	...	.22	...	...	.22	...	...	.22
TOTAL YIELD AND VALUE									
Cost of hogs per cwt.		\$6.32			\$6.42			\$6.44	
Condemnation loss .....		.03			.03			.03	
Handling and overhead .....		.58			.50			.45	
TOTAL COST PER CWT. ALIVE									
TOTAL VALUE		6.87			6.87			6.87	
Loss per cwt. ....		.06			.08			.05	
Loss per hog .....		.12			.18			.13	

CHICAGO PROVISION MARKETS

CASH PRICES

Based on actual carlot trading Thursday,
October 24, 1940

REGULAR HAMS			
	Green	*S.P.	
8-10	12 1/2	13 1/2	
10-12	12 1/2	13 1/2	
12-14	12 1/2	13 1/2	
14-16	12 1/2	13 1/2	
10-16 range	12 1/2		
BOILING HAMS			
	Green	*S.P.	
16-18	13 1/4	13 1/4 @ 14	
18-20	13 1/4	13 1/4 @ 14	
20-22	13 1/4	13 1/4 @ 14	
16-20 range	13 1/4		
16-22 range	13 1/4		
SKINNED HAMS			
	Green	*S.P.	
10-12	13 1/4	14 1/4	
12-14	13 1/4	14 1/4	
14-16	13 1/4	14 1/4	
16-18	14 1/4	14 1/4	
18-20	13 1/4	14 1/4	
20-22	13 1/4	14 1/4	
22-24	12 1/2	13	
24-26	12 1/2	13	
25-30	11 1/2	12 1/2	
25/up, No. 2's inc.	11 1/2		
PICNICS			
	Green	*S.P.	
4-6	9 1/2 @ 9 3/4	9 3/4	
6-8	9 3/4 @ 9 1/2	9 3/4	
8-10	9 3/4	9 3/4	
10-12	9 3/4	9 3/4	
12-14	9 3/4 @ 9 1/2	9 3/4	
14-16	9 3/4 @ 9 1/2	9 3/4	
8/up, No. 2's inc.	9 3/4 @ 9 1/2		
Short shank 3/4 @ 1/2 over.			
BELLIES			
	Green	*D.C.	
6-8	10 1/2	11 1/2	
8-10	10 1/2	11 1/2	
10-12	11	12	
12-14	11	12	
14-16	11	12	
16-18	11	12	
*Quotations represent No. 1 new cure.			
GREEN AMERICAN BELLIES			
18-20	10 1/2		
20-25	10 1/2		
D. S. BELLIES			
	Clear	Rib	
16-18	10 1/2		
18-20	10 1/2		
20-25	10 1/2		
25-30	10 1/2		
30-35	10 1/2		
35-40	10 1/2		
40-50	10 1/2		
D. S. FAT BACKS			
6-8	4 3/4		
8-10	4 3/4		
10-12	5 1/4		
12-14	5 1/4		
14-16	6		
16-18	6 1/4		
18-20	7 1/2		
20-25	7 1/2		
OTHER D. S. MEATS			
Regular plates	6-8	7 1/2	
Clear plates	4-6	5 1/2	
D. S. jowl butts		5 1/2	
S. P. jowls		5 1/2	
Green square jowls		6 1/4	
Green rough jowls		5 1/4	

WEEK'S LARD PRICES

Prices of cash, loose and leaf lard on
the Chicago Board of Trade:

	Cash	Loose	Leaf
Monday, Oct. 21	4.67 1/2	4.67 1/2	4.75
Tuesday, Oct. 22	4.67 1/2	4.72 1/2	4.75
Wednesday, Oct. 23	4.77 1/2	4.82 1/2	4.87 1/2
Thursday, Oct. 24	4.67 1/2	4.75	4.75
Friday, Oct. 25	4.65	4.70	4.75

Packers' Wholesale Prices

Refined lard, tierces, f.o.b. Chgo.	6.87 1/2
Kettle rend., tierces, f.o.b. Chgo.	7.87 1/2
Leaf, kettle rend., tierces, f.o.b. Chgo.	7.87 1/2
Neutral, tierces, f.o.b. Chicago	7.62 1/2
Shortening, tierces, c.a.f.	8 1/2

Havana, Cuba Lard Price

Wednesday, October 23, 1940	
Pure lard	9.95c

FUTURE PRICES

SATURDAY, OCTOBER 19, 1940

LARD—				
	Open.	High.	Low.	Close.
Oct.	4.80	4.82 1/2	4.80	4.65b
Dec.	4.80	4.82 1/2	4.80	4.80
Jan.	4.95			4.95
Mar.				5.97 1/2 ax
May	6.15			6.15b
July	6.30			6.30

Sales: Dec. 3; Jan. 2; May 3; July 1; total 11 sales.
Open interest: Oct. 4; Dec. 1,093; Jan. 1,311; Mar. 69; May 62; July 2; total 2,641 lots.

CLEAR BELLIES—				
	Open.	High.	Low.	Close.
Oct.	10.50	11.00	10.50	11.00

MONDAY, OCTOBER 21, 1940

LARD—				
	Open.	High.	Low.	Close.
Oct.	4.75	4.75	4.72 1/2	4.62 1/2 ax
Dec.	4.75	4.75	4.72 1/2	4.75b
Jan.	4.90	4.90	4.87 1/2	4.90ax
Mar.	5.90	5.90	5.87 1/2	5.87 1/2 ax
May	6.07 1/2	6.07 1/2	6.05	6.05b
July				6.22 1/2 ax

Sales: Dec. 4; Jan. 14; Mar. 1; May 7; total 26 sales.
Open interest: Oct. 1; Dec. 1,092; Jan. 1,319; Mar. 70; May 169; July 2; total 2,650 lots.

TUESDAY, OCTOBER 22, 1940

LARD—				
	Open.	High.	Low.	Close.
Oct.	4.77 1/2	4.77 1/2	4.75	4.62 1/2 b
Dec.	4.77 1/2	4.77 1/2	4.75	4.77 1/2
Jan.	4.90	4.92 1/2	4.90	4.92 1/2
Mar.	5.90	5.90	5.87 1/2	5.90
May	6.07 1/2	6.10	6.07 1/2	6.07 1/2 b
July				6.25b

Sales: Oct. 2; Dec. 5; Jan. 10; Mar. 4; May 9; total 30 sales.

Open interest: Oct. 2; Dec. 1,091; Jan. 1,328; Mar. 68; May 170; July 3; total 2,667 lots.

WEDNESDAY, OCTOBER 23, 1940

LARD—				
	Open.	High.	Low.	Close.
Oct.	4.70	4.70	4.70	4.70b
Dec.	4.80	4.85	4.80	4.85b
Jan.	4.95	5.00	4.95	5.00ax
Mar.	5.97 1/2	6.00	5.97 1/2	5.97 1/2 b
May	6.10	6.17 1/2	6.10	6.17 1/2 b
July	6.37 1/2			6.37 1/2

Sales: Oct. 5; Dec. 11; Jan. 17; Mar. 1; May 5; July 1; total 40 sales.

Open interest: Oct. 4; Dec. 1,088; Jan. 1,331; Mar. 67; May 169; July 3; total 2,662 lots.

THURSDAY, OCTOBER 24, 1940

LARD—				
	Open.	High.	Low.	Close.
Oct.	4.70	4.70	4.65	4.65ax
Dec.	4.82 1/2	4.82 1/2	4.72 1/2	4.72 1/2 b
Jan.	4.97 1/2	4.97 1/2	4.87 1/2	4.87 1/2 b
Mar.	5.92 1/2	5.92 1/2	5.90	5.90ax
May	6.15	6.15	6.07 1/2	6.10ax
July	6.25			6.25ax

Sales: Oct. 1; Dec. 12; Jan. 14; Mar. 1; May 4; July 1; total 33 sales.

Open interest: Dec. 1,084; Jan. 1,331; Mar. 66; May 172; July 3; total 2,656 lots.

FRIDAY, OCTOBER 25, 1940

LARD—				
	Open.	High.	Low.	Close.
Oct.	4.70	4.72 1/2	4.67 1/2	4.60ax
Dec.	4.70	4.72 1/2	4.67 1/2	4.70ax
Jan.	4.82 1/2	4.85	4.82 1/2	4.82 1/2 b
Mar.	5.87 1/2	5.90	5.87 1/2	5.87 1/2 ax
May	6.05	6.07 1/2	6.05	6.05
July	6.25			6.25ax

CHICAGO PROV. SHIPMENTS

Provision shipments from Chicago for
the week ended on October 19, 1940:

	Week	Previous	Same
	Oct. 19	week	week '39
Cured meats, lbs.	20,792,000	17,335,000	18,582,000
Fresh meats, lbs.	58,660,000	46,270,000	61,021,000
Lard, lbs.	5,937,000	3,636,000	7,657,000

LARD AND GREASE EXPORTS

Exports of greases from New York
City, week of October 19, totaled 115-
600 lbs.

Provisions and Lard

LARD.—The futures market was moderately active and displayed an easy tone most of the week as a result of comparatively heavy hog marketings, liquidation and hedging pressure. Strength in other commodities, the development of a steadier tone in hogs, and lighter hedging pressure led to some recovery. At mid-week prices were little changed from a week earlier.

Lard developed a weak tone on Thursday and closed easy at moderate declines. Rather light scattered offerings met with a slow demand. The continued liberal movement of hogs and some slowing up in the cash demand were the controlling factors.

Domestic demand was good in the East but export demand was quiet. At New York, prime western was quoted 5.20@5.30c; middle western, 5.10@5.20c; New York City in tierces, 4 1/2c, tubs, 5 1/2@5 5/8c; refined continent, 5 1/2@6c; South America, 6@6 1/2c; Brazil kegs, 6 1/2@6 1/4c; shortening in round lots, 7 1/2c, smaller lots 8c.

CANADIAN STORAGE STOCKS

Stocks of meat in storage in Canada on October 1 showed little change from a month earlier. Storage holdings of beef totaled 12,256,000 lbs., veal 4,000,000 lbs., pork 37,509,000 lbs., and mutton and lamb 1,199,000 lbs. With the exception of pork holdings which were 10 million lbs. above last year, all products showed declines from October 1, 1939. The 1940 holdings were also well below the five-year average for October 1 for beef, veal and lamb, but pork showed an increase of about 7 million lbs.

Stocks of meat in Canada on October 1, 1940:

	Oct. 1, 1940	Sept. 1, 1940	Oct. 1, 1939	5-yr. avg.
	lbs.	lbs.	lbs.	lbs.
Beef	12,256,180	11,157,129	14,488,279	14,416,553
Veal	4,019,110	3,548,138	4,238,607	4,233,918
Pork	37,509,328	37,785,500	27,600,015	30,156,925
Lamb and mutton	1,198,548	900,062	1,853,742	1,897,159

AUGUST MEAT PRODUCTION

Tonnage of meat produced in packing plants under federal inspection (dressed weight of animals slaughtered) during August with comparisons (figures in millions of pounds):

	Beef	Veal	Lamb & Pork	Lard**
	1940	1940	1939	1938
August	421	49	57	541
July	421	51	55	596
June	305	45	52	694
May	418	49	57	676
April	400	45	57	623
March	377	42	55	690
February	377	38	56	742
January	431	44	67	939

	1939	1938
August	421	48
	410	53

	1940	1939	1938
Jan.-Aug.	3,239	363	456
	3,087	363	452
	3,143	381	478

*Unrendered. **Rendered.

MEAT AND SUPPLIES PRICES

Chicago

WHOLESALE FRESH MEATS

Carcass Beef		Cor. week.	
Week ended October 24, 1940 per lb.		1939 per lb.	
Prime native steers—			
400-600	20	16 1/4 @ 17 1/4	
600-800	20	15 @ 16	
800-1000	20	15 @ 16	
Good native steers—			
400-600	18 1/4	16 1/4 @ 17 1/4	
600-800	18 1/4	14 1/2 @ 15 1/2	
800-1000	18 1/4	14 1/2 @ 15 1/2	
Medium steers—			
400-600	17 1/4 @ 18 1/4	15 1/4 @ 16 1/4	
600-800	17 1/4	14 1/2 @ 15 1/2	
800-1000	17 1/4	14 1/2 @ 15 1/2	
Heifers, good, 400-600	17 1/4 @ 18 1/4	15 1/4 @ 16 1/4	
Cows, 400-600	12 @ 12 1/2	18 1/4 @ 19	
Hind quarters, choice	24	13 1/2 @ 14 1/2	
Fore quarters, choice	16		

Beef Cuts

unquoted		unquoted	
Steer loins, prime	37	26	
Steer loins, No. 1	37	24	
Steer loins, No. 2	34		
Steer short loins, prime	unquoted	unquoted	
Steer short loins, No. 1	45	27	
Steer short loins, No. 2	40	24	
Steer loin ends (hips)	30	22	
Steer loin ends, No. 2	29 1/2	19	
Cow loins	18	16	
Cow short loins	20	18	
Cow loin ends (hips)	20	16	
Steer ribs, prime	unquoted	unquoted	
Steer ribs, No. 1	28	20	
Steer ribs, No. 2	28	16	
Cow ribs, No. 1	13	14 1/4	
Cow ribs, No. 2	12 1/2	13	
Steer rounds, prime	unquoted	unquoted	
Steer rounds, No. 1	20	16 1/4	
Steer rounds, No. 2	19 1/4	15 1/2	
Steer chuck, prime	unquoted	unquoted	
Steer chuck, No. 1	18	13 1/4	
Steer chuck, No. 2	17 1/2	13	
Cow rounds	14	13	
Cow chuck	13 1/4	10 1/4	
Steer plates	11	8 1/4	
Medium plates	10 1/4	12	
Briskets No. 1 (big)	16	7	
Cow navel ends	8 1/4	8	
Steer navel ends	8	8	
Fore shanks	9	8	
Hind shanks	8	50	
Strip loins, No. 1 bulk	72	40	
Strip loins, No. 2	35	29	
Sirloin butts, No. 1	37	21	
Sirloin butts, No. 2	24	60	
Beef tenderloins, No. 1	68	58	
Beef tenderloins, No. 2	65	16	
Rump butts	24	22	
Flank steaks	26	15 1/4	
Shoulder clods	16	17	
Hanging tenderloins	15	17 1/2	
Insides, green, 5@8 lbs.	16 1/4	15 1/2	
Insides, green, 5@6 lbs.	16	17	
Kauckles, green, 5@6 lbs.	16 1/4		

Beef Products

Brains	7	6
Hearts	10	10
Tongues	18	18
Sweetbreads	14	14
Ox-tail	9	10
Fresh tripe, plain	10	11 1/4
Fresh tripe, H. C.	11 1/4	20
Livers	20	9
Kidneys	9	

Veal

Choice carcass	17 @ 18	17
Good carcass	15 @ 16	15
Good saddles	21 @ 22	20
Good racks	14 @ 15	14
Medium racks	12	12

Veal Products

Brains, each	10	9
Sweetbreads	30	30
Calf livers	53	35

Lamb

Choice lambs	16	16
Medium lambs	15	15
Choice saddles	20	20
Medium saddles	19	19
Choice foies	12	13
Medium foies	11	12
Lamb fries	28	32
Lamb tongues	17	17
Lamb kidneys	15	15

Mutton

Heavy sheep	6	6
Light sheep	7	7
Heavy saddles	7	7
Light saddles	10	10
Heavy foies	4	5
Light foies	6	6
Mutton legs	12	10
Mutton loins	8	9
Mutton stew	4	6 1/4
Sheep tongues	11	12 1/2
Sheep heads, each	11	11

Fresh Pork and Pork Products

Pork loins, 8-10 lbs. av.	15	16 1/4
Picnics	11	11
Skinned shoulders	12	13
Tenderloins	34	28
Spareribs	11	12
Boston butts	13 1/2	14
Boneless butts, cellar trim, 2@4	17	18
Hocks	8	8
Tails	5	5
Neck bones	7	8
Slip bones	7	11
Blade bones	8	11
Pigs' feet	2 1/4	4
Kidneys, per lb.	4	8
Livers	7	9
Brains	4	4
Ears	4	4
Snouts	4	5
Heads	5	8
Chitterlings	5	6 1/4

WHOLESALE SMOKED MEATS

Fancy regular hams, 14@16 lbs., parchment paper	17 1/4 @ 18
Fancy skinned hams, 14@16 lbs., parchment paper	18 1/4 @ 19 1/4
Standard reg. hams, 14@16 lbs.	16 1/4 @ 17
Picnics, 4@8 lbs., short shank, plain	13 1/4 @ 14 1/4
Picnics, 4@8 lbs., long shank, plain	11 1/4 @ 12 1/4
Fancy bacon, 6@8 lbs., plain	18 1/4 @ 19
Standard bacon, 6@8 lbs., plain	15 1/2 @ 16
No. 1 beef sets, smoked	39 1/4 @ 40 1/4
Insides, 5@12 lbs.	35 @ 36
Outsides, 5@9 lbs.	36 @ 37
Knuckles, 5@9 lbs.	30 1/2
Cooked hams, choice, skin on, fattened	31 1/2
Cooked hams, choice, skinless, fattened	31 1/2
Cooked picnics, skin on, fattened	26
Cooked picnics, skinned, fattened	26 1/2

VINEGAR PICKLED PRODUCTS

Pork feet, 200-lb. bbl.	\$15.75
Lamb tongue, short cut, 200-lb. bbl.	65.00
Regular tripe, 200-lb. bbl.	17.25
Honeycomb tripe, 200-lb. bbl.	22.25
Pocket honeycomb tripe, 200-lb. bbl.	26.00

BARRELED PORK AND BEEF

Clear fat back pork:	
70-80 pieces	\$13.00
80-100 pieces	12.50 @ 13.00
100-125 pieces	11.50
Clear plate pork, 25-35 pieces	12.00
Bean pork	13.00
Brisket pork	18.50
Plate beef	22.50
Extra plate beef	22.00

SAUSAGE MATERIALS

Regular pork trimmings	8 @ 9
Special lean pork trimmings 85%	13 1/4 @ 14
Extra lean pork trimmings 95%	15 @ 15 1/2
Pork cheek meat (trimmed)	9 @ 9 1/2
Pork hearts	8 1/4
Pork livers	5 @ 5 1/2
Nattie boneless meat (heavy)	14
Boneless chucks	12
Shank meat	13 @ 13 1/2
Pork trimmings	10
Beef cheeks (trimmed)	9
Dressed canners 350 lb. up	9
Dressed canner cows, 400-450-lb.	9 1/4
Dr. bologna bulls, 600 lbs. and up	10 1/4
Pork tongues, canner trim, fresh	6

DOMESTIC SAUSAGE

(Quotations cover fancy grades.)	
Pork sausage, in 1-lb. carton	24
Country style sausage, fresh in link	19 1/4
Country style sausage, fresh in bulk	17 1/2
Country style sausage, smoked	23 1/2
Frankfurters, in sheep casings	24 1/2
Frankfurters, in hog casings	22
Skinless frankfurters	21 1/2
Bologna in beef middles, choice	18
Bologna in beef middles, choice	18 1/2
Liver sausage in beef rounds	15
Liver sausage in hog bungs	17
Smoked liver sausage in hog bungs	21 1/4
Head cheese	22
New England luncheon specialty	22
Mixed luncheon specialty, choice	20
Tongue & blood	17
Blood sausage	17
Souse	16 1/4
Polish sausage	28

DRY SAUSAGE

Cervelat, choice, in hog bungs	37
Thuringer	20
Farmer	29
Holsteiner	29
B. C. salami, choice	34 1/4
Milano, salami, choice in hog bungs	32
B. C. salami, new condition	19
Frisses, choice, in hog middles	32
Genoa style salami, choice	40
Pepperoni	19
Mortadella, new conditions	19 1/4
Capicola	43
Italian style hams	31
Virginia hams	37

CURING MATERIALS

Nitrite of soda (Chgo. w'base stock).	Cwt.
In 400-lb. bbls., delivered	\$ 8.75
Saltpeter, less than ton lots f.o.b. N. Y.:	
Dbl. refined granulated	8.00
Small crystals	9.00
Medium crystals	9.25
Large crystals	10.00
Pure rfd. gran. nitrate of soda	2.90
Pure rfd. powdered nitrate of soda	5.90
Salt, per ton, in minimum car of 80,000 lbs.	
only, f.o.b. Chicago, per ton:	
Granulated	7.20
Medium, dried	10.20
Rock	6.80
Sugar—	
Kaw, 96 basis, f.o.b. New Orleans	2.82
Standard gran., f.o.b. refiners (2%)	4.80
Packers' curing sugar, 250 lb. bags,	
f.o.b. Reserve, La., less 2%	4.00
Dextrose, in car lots, per cwt. (Cotton)	3.64
In paper bags	3.60

SAUSAGE CASINGS

(F. O. B. Chicago.)	
(Prices quoted to manufacturers of sausage.)	
Beef casings:	
Domestic rounds, 180 pack	.14
Domestic rounds, 140 pack	.30
Export rounds, wide	.37
Export rounds, medium	.18
Export rounds, narrow	.08
No. 1 weasands	.06
No. 2 weasands	.04
No. 1 bungs	.12
No. 2 bungs	.08
Middles, regular	.45
Middles, select, wide, 2@2 1/4 in.	.45
Middles, select, extra, 2 1/4 in. & up	.70
Dried bladders	
12-15 in. wide, flat	.90
10-12 in. wide, flat	.75
8-10 in. wide, flat	.40
6-8 in. wide, flat	.25
Pork casings:	
Narrow, per 100 yds.	1.75
Narrow, special, per 100 yds.	1.45
Medium, regular	1.10
English, medium	.95
Wide, per 100 yds.	.80
Extra wide, per 100 yds.	.50
Export bungs	.15
Large prime bungs	.12
Medium prime bungs	.06
Small prime bungs	.03 1/4
Middles, per set	.14

SPICES

(Basis Chicago, original bbls., bags or bales.)	
Whole Ground	
Allspice, prime	17 1/2 @ 19 1/2
Resifted	19
Chili pepper	23
Powder	23
Cloves, Amboyra	28
Zanzibar	18
Ginger, Jamaica	12 1/2 @ 17
African	8
Mace, Fancy Banda	.61
East India	.55
East & West India Blend	.57
Mustard flour, fancy	30
No. 1	21
Nutmeg, fancy Banda	21
East India	22 1/2
East & West India Blend	16
Paprika, Spanish	46
Fancy Hungarian	43
No. 1 Hungarian	40 1/4
Pepper, Cayenne	38
Red No. 1	25
Black Malabar	18 1/4
Black Lampong	8
Pepper, white Singapore	9 1/4
Muntok	9 1/4
Packers	11 1/4

SEEDS AND HERBS

Whole for Saus.	
Caraway seed	31
Celery seed, French	39
Cominos seed	24
Coriander Morocco bleached	12
Coriander Morocco natural No. 1	11
Mustard seed, fancy yellow	26
American	18
Marjoram French	46
Oregano	12
Balmation No. 1	75

(Continued on page 26.)

PURE VINEGARS

A. P. CALLAHAN & COMPANY

2407 SOUTH LA SALLE STREET

CHICAGO, ILL.

MARKET PRICES

New York

DRESSED BEEF

Choice, native, heavy.....	21½ @ 23
Choice, native, light.....	21 @ 22
Native, common to fair.....	17 @ 18

Western Dressed Beef

Native steers, 600@800 lbs.....	18 @ 19
Native choice yearlings, 440@600 lbs.....	17 @ 18
Good to choice heifers.....	16 @ 17
Good to choice cows.....	14 @ 15
Common to fair cows.....	13 @ 14
Fresh bologna bulls.....	13 @ 14

BEEF CUTS

	Western	City
No. 1 ribs.....	23 @ 24	22 @ 24
No. 2 ribs.....	20 @ 21	21 @ 22
No. 3 ribs.....	19 @ 20	19 @ 20
No. 1 loins.....	32 @ 36	30 @ 40
No. 2 loins.....	26 @ 32	30 @ 35
No. 3 loins.....	20 @ 24	25 @ 29
No. 1 hinds and ribs.....	20 @ 21	21 @ 24
No. 2 hinds and ribs.....	18 @ 19	19 @ 21
No. 1 rounds.....	17 @ 17	17 @ 17
No. 2 rounds.....	16 @ 16	16 @ 16
No. 3 rounds.....	15 @ 15	15 @ 15
No. 1 chuck.....	15 @ 15	15 @ 15
No. 2 chuck.....	14 @ 14	14 @ 14
No. 3 chuck.....	13 @ 13	13 @ 13
City dressed bolognas.....	13½ @ 14½	
Rolls, reg. 4@8 lbs. av.....	18 @ 20	
Rolls, reg. 6@8 lbs. av.....	23 @ 25	
Tenderloins, 4@8 lbs. av.....	19 @ 21	
Tenderloins, 5@8 lbs. av.....	20 @ 20	
Shoulder clods.....	16 @ 18	

DRESSED VEAL

Good.....	16 @ 18
Medium.....	15 @ 16
Common.....	14 @ 15

DRESSED SHEEP AND LAMBS

Genuine spring lambs, good.....	16 @ 17
Genuine spring lambs, good to medium.....	15 @ 16
Genuine spring lambs, medium.....	14½ @ 15
Sheep, good.....	10 @ 10
Sheep, medium.....	6 @ 8

DRESSED HOGS

Hogs, good and choice (110-140 lbs.)	
head on; leaf fat in.....	\$ 9.89@10.38
Pigs, small lots (60-110 lbs.)	
head on; leaf fat in.....	11.50@12.50

FRESH PORK CUTS

Pork loins, fresh, Western 10@12 lbs.....	17 @ 17½
Shoulders, Western, 10@12 lbs. av.....	13 @ 13½
Butts, regular, Western.....	16 @ 16½
Hams, Western, fresh, 10@12 lbs. av.....	15 @ 16
Picnics, Western, fresh, 6@8 lbs. av.....	12 @ 13
Pork trimmings, extra lean.....	17 @ 18
Pork trimmings, regular, 50% lean.....	11 @ 11½
Spareribs.....	12 @ 13

COOKED HAMS

Cooked hams, choice, skin on, fattened.....	35
Cooked hams, choice, skinless, fattened.....	36

SMOKED MEATS

Regular hams, 8@10 lbs. av.....	18 @ 19
Regular hams, 10@12 lbs. av.....	18 @ 19
Regular hams, 12@14 lbs. av.....	18 @ 19
Skinned hams, 10@12 lbs. av.....	19½ @ 20
Skinned hams, 12@14 lbs. av.....	19½ @ 20
Skinned hams, 16@18 lbs. av.....	19 @ 19½
Skinned hams, 18@20 lbs. av.....	19 @ 20
Picnics, 4@6 lbs. av.....	15½ @ 16
Picnics, 6@8 lbs. av.....	15 @ 15½
Bacon, boneless, Western.....	19 @ 20
Bacon, boneless, city.....	18½ @ 19½
Beef tongue, light.....	22 @ 23
Beef tongue, heavy.....	28 @ 24

FANCY MEATS

Fresh steer tongues, untrimmed.....	16c a pound
Fresh steer tongues, l. c. trimmed.....	28c a pound
Sweetbreads, beef.....	25c a pound
Sweetbreads, veal.....	60c a pair
Beef kidneys.....	11c a pound
Mutton kidneys.....	5c each
Livers, beef.....	20c a pound
Oxtails.....	14c a pound
Beef hanging tenders.....	30c a pound
Lamb fries.....	12c a pair

BUTCHERS' FAT

Shop Fat.....	\$.75 per cwt.
Breast Fat.....	1.25 per cwt.
Edible Suet.....	2.25 per cwt.
Inedible Suet.....	1.75 per cwt.

GREEN CALFSKINS

	5-9	9½-12½	12½-14	14-18	18 up
Prime No. 1 veals.....	19	2.90	3.25	3.30	3.80
Prime No. 2 veals.....	17	2.60	2.95	3.00	3.40
Buttermilk No. 1.....	14	2.40	2.75	2.80	....
Buttermilk No. 2.....	13	2.25	2.60	2.65	....
Branded gruby.....	12	1.80	2.10	2.15	2.20
Number 3.....	12	1.80	2.10	2.15	2.20

WHOLESALE DRESSED MEAT PRICES

Wholesale prices of western dressed meats, quoted by the U. S. Department of Agriculture, Agricultural Marketing Service, on October 23, 1940:

	CHICAGO	BOSTON	NEW YORK	PHILA.
Fresh Beef:				
STEER, Choice:				
400-500 lbs. ¹	\$19.00@20.50			
500-600 lbs. ¹	19.00@20.50		\$20.00@21.50	\$21.50@22.00
600-700 lbs. ²	19.50@20.50	\$19.50@21.00	20.00@21.50	21.50@22.00
700-800 lbs. ²	19.50@20.50	19.50@21.00	20.00@21.50	21.50@22.00
STEER, Good:				
400-500 lbs. ¹	17.00@19.50			
500-600 lbs. ¹	17.00@19.50		17.00@20.50	19.50@21.50
600-700 lbs. ²	17.00@19.50	17.50@19.50	17.00@20.50	19.50@21.50
700-800 lbs. ²	17.00@19.50	17.50@19.50	17.00@20.50	19.50@21.50
STEER, Commercial:				
400-600 lbs. ¹	14.50@17.00		14.00@16.50	15.00@18.50
600-700 lbs. ²	14.50@17.00	15.00@17.50	14.50@17.00	15.00@18.50
STEER, Utility:				
400-600 lbs. ¹	12.00@14.50	13.50@15.00	13.00@14.00	13.00@15.00
COW (all weights):				
Commercial.....	12.50@14.00	13.50@14.50	13.50@14.50	.....
Utility.....	10.75@12.50	12.50@13.50	12.50@13.50	13.00@14.00
Cutter.....	9.75@10.75	11.50@12.50	11.50@12.50	12.00@13.00
Canner.....	9.00@ 9.75	.....	.....	.....
Fresh Veal and Calf:				
VEAL, Choice:				
80-130 lbs.....	16.00@17.50	17.00@19.00	17.00@19.00	18.00@19.00
130-170 lbs.....	14.50@16.50	.....	15.50@17.50	.....
VEAL, Good:				
50-80 lbs.....	13.50@15.00	14.50@16.50	14.00@16.00	16.00@17.00
80-130 lbs.....	14.00@16.00	15.00@17.00	14.50@17.00	15.00@16.00
130-170 lbs.....	12.50@14.50	.....	13.50@16.00	.....
VEAL, Medium:				
50-80 lbs.....	12.50@13.50	13.00@15.00	13.00@14.00	15.00@16.00
80-130 lbs.....	13.00@14.00	13.00@14.50	13.00@14.50	14.00@15.00
130-170 lbs.....	11.50@12.50	11.50@13.00	11.50@13.50	13.00@14.00
VEAL, Common:				
All weights.....	10.50@12.00	11.00@13.00	10.00@12.00	12.00@13.00
Fresh Lamb and Mutton:				
LAMB, Choice:				
30-40 lbs.....	16.00@17.00	16.50@17.50	16.00@17.00	18.00@19.00
40-45 lbs.....	16.00@17.00	16.00@17.00	15.50@16.50	17.50@18.50
45-50 lbs.....	15.00@16.00	15.50@16.50	15.00@16.00	17.00@18.00
50-60 lbs.....	14.00@15.00	14.50@15.50	14.00@15.00	16.50@17.50
LAMB, Good:				
30-40 lbs.....	14.50@16.00	15.50@16.50	15.00@16.00	17.00@18.00
40-45 lbs.....	14.50@16.00	15.00@16.00	14.50@15.50	17.00@18.00
45-50 lbs.....	14.00@15.00	14.50@15.50	14.00@15.00	16.50@17.50
50-60 lbs.....	13.00@14.00	14.00@15.00	13.00@14.00	16.00@17.00
LAMB, Medium:				
All weights.....	13.00@14.50	14.00@15.50	13.00@14.50	15.00@16.00
LAMB, Common:				
All weights.....	12.00@13.00	13.00@14.50	12.00@13.00	13.00@15.00
MUTTON (Ewe), 70 lbs. down:				
Good.....	7.00@ 8.00	8.00@ 9.00	7.50@ 8.50	7.00@ 8.00
Medium.....	6.00@ 7.00	7.00@ 8.00	6.50@ 7.50	6.00@ 7.00
Common.....	5.00@ 6.00	6.00@ 7.00	5.50@ 6.50	5.00@ 6.00

Fresh Pork Cuts:

LOINS (No. 1) (Bladeless Incl.):				
8-10 lbs.....	14.50@15.50	16.00@17.00	16.00@17.00	16.00@17.50
10-12 lbs.....	14.50@15.50	16.00@17.00	16.00@17.00	16.00@17.50
12-15 lbs.....	14.50@15.50	15.50@16.50	15.50@16.50	16.00@17.50
16-22 lbs.....	13.00@14.50	13.50@15.50	.....	15.00@16.00
SHOULDERS: Skinned, N. Y. Style:				
8-12 lbs.....	11.50@12.50	.....	13.00@14.00	.....
BUTTS: Boston Style:				
4-8 lbs.....	13.00@14.00	.....	15.00@16.50	15.50@16.50
SPARE RIBS:				
Half Sheets.....	12.00@13.00	.....	.....	.....
TRIMMINGS:				
Regular.....	8.50@ 9.00	.....	.....	.....

¹Includes heifer 300-450 lbs. and steer down to 300 lbs. at Chicago. ²Includes koshered beef sales at Chicago. ³Skin on at Chicago and New York; equivalent weights skin off at Boston and Philadelphia. ⁴Based on 50-100 pound box sales to retailers.

All quotations in dollars per hundredweight. Beef, veal, calf, lamb, and mutton prices apply to straight and calculated carcass bases.

NEW SURPLUS FOOD LIST

The U. S. Department of Agriculture has announced that lard and pork will continue on the official list of surplus foods available to families taking part in the food order stamp plan for the period which extends through October 31. These are foods which can be obtained with the blue food stamps at local stores in stamp plan areas.

Irish potatoes, a food staple of the

entire nation, have been added to the nationally listed surplus foods designated for the October 1 to 31 period. With this exception, the list of nationally designated foods is the same for October as it was for the September 2 to 30 period.

Careless work in hog scalding costs money. Read "PORK PACKING," The National Provisioner's pork handbook.

Higher Levels Follow New Tallow, Grease Activity

Market in West is stronger than that at New York, where turnover was small—Trade eyes narrowing lard-tallow differential—Tallow and grease steadily withstand beginning of December lard liquidation.

TALLOW.—The tallow market was rather quiet but strong at New York during the past week. Some additional modest sales passed at 4c for extra—possibly 250,000 lbs.—but business was kept down by smallness of offerings from first hands and refusal of consumers to come up in their ideas. The market in the West was stronger and this, plus a well sold up position on the part of local producers, made for a situation where sellers' ideas were somewhat higher. The market was 4c bid on extra and 4½c asked, and should outside commodities continue strong, tallow observers said that no important amounts would come out below 4½c.

The trade is watching the lard market action closely in view of the recent relative strength in tallow. Should tallow continue to gain on lard prices, some fear that lard may again go into the soap kettle.

At New York, edible was quoted at 4½c; extra, 4c, and special, 3½c.

Notwithstanding the development of some uncertainty, brought about early this week by the beginning of liquidation in December lard, the tallow market at Chicago showed a firm to stronger tone. From midweek on, there was a fair movement of material reported, accompanied by a stronger trend. Fancy tallow sold Wednesday at 4½c, Chicago, and prime was wanted at 4c. Same day, special was reported sold at 3½c, Chicago, although the buyer was said to have declined further offerings. Good quality No. 3 tallow sold at midweek at 3½c, Chicago. In the strong tallow market which developed on Thursday, a couple of tanks of prime tallow sold at 4½c, Chicago; sales at 4½c, outside point, were reported Wednesday night. Sales of special tallow were recorded on Thursday at 4c, Chicago, prompt. Quotations in the Chicago tallow market on Thursday were as follows:

Edible tallow	4½@4½
Fancy tallow	4½@4½
Prime packers	4½@4½
Special tallow	4½@4½
No. 1 tallow	3½

STEARINE.—The market at New York was quiet but very steady. The last sales of oleo were at 6½c, off ½c from the previous week, but offerings were scanty.

At Chicago, the market was quiet and about steady. Prime was quoted at 5½-6c.

OLEO OIL.—The market was dull

with interest routine at New York, but prices were steady. Extra was quoted at 6¼@6½c; prime, 6@6½c; and lower grades, 5¼@6¼c.

At Chicago, trade was quiet but prices steady. Extra was quoted at 7c.

GREASE OILS.—The market was quiet but steady at New York. No. 1 was quoted at 7c; No. 2, 6½c; extra, 7½c; extra No. 1, 7¼c; winter strained, 7½c; prime burning, 8½c, and prime inedible, 8c.

Grease oil quotations at Chicago were as follows: No. 1, 7c; No. 2, 6½c; extra, 7½c; extra No. 1, 7¼c; winter strained, 7½c; special No. 1, 7½c; prime burning, 8½c; and prime inedible, 7½c. Acidless tallow oil was quoted at 7c.

NEATSFOOT OIL.—The market was steady but quiet at New York. Cold test was quoted at 15¼c; extra, 7½c; extra No. 1, 7¼c; prime, 7½c, and pure, 10¼c.

Neatsfoot oil quotations at Chicago were: Cold test, 15c; extra 7½c; No. 1, 7¼c; prime, 7½c, and pure, 10¼c.

(See page 31 for later markets.)

GREASES.—While trade was moderate at New York, the market was stronger, with yellow and house trading at 3½c, an advance of ¼c from the previous week. Only a few cars were said to have changed hands. Light offerings, firmness in tallow and a stronger tone in commodities in general accounted for the firmness in greases. Producers are comfortably sold up, and although consumers were not inclined to pay up for supplies, those needing greases had to meet the new market levels. Export interest was quiet, but during the week ended October 19, New York exported 115,600 lbs. of greases to Europe.

At New York, choice white was quoted at 4½c, yellow and house, 3½c; and brown, 3¼@3½c.

The Chicago grease market this week showed a strong tone in the face of the beginning of liquidation in December lard, with a fair amount of activity recorded. White grease sold at 4c, Chicago, on Wednesday, advancing to 4½c on Thursday as buying interest increased. Thursday's active grease market at Chicago also saw sale of a couple of tanks of good quality yellow grease at 3½c, while brown grease was considered possibly salable at 3½c, a tank having been reported the preceding night at 3½c, Chicago. Good quality No. 3 tallow sold on Wednesday at 3½c, Chicago. Grease prices at Chicago on Thursday were as follows:

Choice white grease	4½
A-white grease	3½@4
B-white grease	3½
Yellow grease, 10-15 f.f.a.	3½
Yellow grease, 16-20 f.f.a.	3¼@3½
Brown grease	3¼@3½

BY-PRODUCTS MARKETS

(Quotations given are basis Chicago.)
October 24, 1940

A nominally firmer trend developed in several parts of the by-products list this week, with the volume of trading remaining small.

Blood

Dried blood was last reported sold at \$2.65, Chicago. It is now in a nominal position; buyers are hesitant to take on added supplies at the higher level.

Unit	Ammonia
Unground	\$ 2.65

Digester Feed Tankage Materials

Digester feed tankage mostly nominal; sellers now asking the outside figure. Buying and selling interests appear in a position to adhere to their own ideas of price levels.

Unground, 11 to 12% ammonia	\$2.65@2.75
Unground, 6 to 10%, choice quality	2.80@3.00
Liquid stick	1.50

Packinghouse Feeds

Feeds quoted same as last week. Stocks reported well sold up and demand good.

Carlots, Per ton	
60% digester tankage	\$42.50
50% meal and bone scraps	40.00
Blood-meal	50.00
Special steam bone-meal	45.00

Bone Meals (Fertilizer Grades)

Bone meals nominally firmer; sellers asking \$35.00.

Per ton	
Steam, ground, 3 & 50	\$32.50@35.00
Steam, ground, 2 & 26	32.50@35.00

Fertilizer Materials

Nominally stronger market in fertilizer materials prevailed this week.

Per ton	
High grade tankage, ground	
10@11% ammonia	\$ 2.40@ 2.50 & 10c
Bone tankage, unground, per ton	20.00@22.50
Hoof meal	2.00@ 2.25

Dry Rendered Tankage

Strength was apparent this week in the cracklings market, accompanying a firmer tendency in tallow and greases. Sales of low test were reported in the range shown; the high test material has been less active.

Per ton	
Hard pressed and expeller unground, up to 48% protein (low test)	\$.57¼@ .60
above 48% protein (high test) .....	.52¼@ .55
Soft pressed pork, ac. grease and quality, ton	32.50@35.00
Soft pressed beef, ac. grease and quality, ton	30.00@32.50

Gelatine and Glue Stocks

Quiet situation in gelatine and glue stocks. No price changes reported this week.

Per ton	
Calf trimmings	\$ 25.00
Sinews, pizzles	18.00
Cattle jaws, skulls and knuckles	30.00@32.50
Hide trimmings	13.00@14.00
Pig skin scraps and trim, per lb.	5@5½c

Bones and Hoofs

Bones and hoofs very quiet at earlier levels. Some indication of easier trend.

Per ton	
Round shins, heavy	\$ 50.00
light	47.50@50.00
Flat shins, heavy	42.50@45.00
light	40.00
Blades, buttocks, shoulders & thighs ..	37.50@40.00
Hoofs, white	55.00
Hoofs, house run, unassorted	22.50@25.00
Junk bones	22.50@24.00

Animal Hair

No changes in the animal hair market, which remains firm and active.

Winter coil dried, per ton	\$50.00@52.50
Summer coil dried, per ton	25.00@30.00
Winter processed, black, lb.	7½@ 8¼c
Winter processed, gray, lb.	7 @ 7¼c
Summer, processed, gray, lb.	3 @ 8¼c
Cattle switches	3 @ 8¼c

FERTILIZER PRICES

BASIS NEW YORK DELIVERY

Ammoniates

Ammonium sulphate, bulk, per ton, basis ex-vessel Atlantic ports.....	\$28.00
Blood, dried, 16% per unit.....	2.35
Unground fish scrap, dried, 11½% ammonia, 16% B. P. L., f.o.b. fish factory.....	3.25 & 10c
Fish meal, foreign, 11½% ammonia, 10% B. P. L., c.i.f. spot.....	51.00
November shipment.....	51.00
Fish scrap, acidulated, 70% ammonia, 3% A. P. A., f.o.b. fish factories.....	2.50 & 50c
Soda nitrate, per net ton; bulk, ex-vessel Atlantic and Gulf ports.....	27.00
in 200-lb. bags.....	28.70
in 100-lb. bags.....	29.40
Fertilizer tankage, ground, 10% ammonia, 10% B. P. L. bulk.....	2.40 & 10c
Feeding tankage, unground, 10-12% ammonia, 15% B. P. L. bulk.....	2.40 & 10c

Phosphates

Foreign bone meal, steamed, 3 and 50 bags, per ton, c.i.f.....	\$32.50
Bone meal, raw, 4½% and 50%, in bags, per ton, c.i.f.....	31.50
Superphosphate, bulk, f.o.b. Baltimore, per ton, 16% fat.....	8.50

Dry Rendered Tankage

50/55% protein, unground.....	52½c
60% protein, unground.....	57½c

EASTERN FERTILIZER MARKETS

New York, October 24, 1940

All markets had a steady tone the past week and cracklings were well cleaned up at New York at 52½c per unit, with some producers asking 55c. High grade cracklings are offered at 57½c per unit, f.o.b. New York. Some sales were made of tankage at \$2.25 and 10c, f.o.b. eastern shipping points, with lowest offerings now at \$2.40 and 10c.

Blood is held at New York at \$2.35 and imported material is offered at \$2.45. There is a better demand for most fertilizer and feed materials and the markets are in a good position.

SEPTEMBER MARGARINE TAX

Taxes paid on oleomargarine during September, 1940 and 1939, according to the report of the U. S. Bureau of Internal Revenue, were as follows:

	1940	1939
Excise taxes.....	\$72,134.25	\$ 78,749.82
Special taxes.....	24,025.88	23,706.93
Total.....	\$96,160.13	\$102,546.45

Quantity of product on which tax was paid during September, 1940, totaled 31,498 lbs. of colored margarine and 27,196,460 lbs. of uncolored; during September, 1939, tax was paid on 17,798 lbs. of colored and on 30,787,688 lbs. of uncolored margarine.

TALLOW FUTURE TRADING

Monday, Oct. 21—Close: Dec. 4.05 b; Mar. 4.20@4.40.

Tuesday, Oct. 22—Close: Dec. 4.05 @4.25; Mar. 4.20@4.40.

Wednesday, Oct. 23—Close: Dec. 4.05@4.25; Mar. 4.20@4.40.

Thursday, Oct. 24—Close: Dec. 4.25 @4.40; Jan. 4.30@4.45; Mar. 4.35@4.50.

Friday, Oct. 25—Close: Dec. 4.25@4.40; Jan. 4.30@4.55; Mar. 4.35@4.60; no sales.

Cotton Oil Futures Sag As Hedging Pressure Continues

Demand fails to follow small advances and prices go to new lows—Hedge selling not pressed but persistent—coconut oil steady.

COTTONSEED oil futures continued to display an unsteady undertone in modest day to day operations in the New York market. In fact, prices went into new low ground for the season again this week, notwithstanding firmness in most other commodities. Cottonseed oil futures were under pressure of hedging against the new crop movement and the lard market failed to display strength.

There was scattered outside investment demand for oil futures and the professional ring element were friendly to the constructive side, buying liberally at times. Demand failed to follow small advances and buying power dried up quickly when hedge selling made its appearance. Crude oil was barely steady in the South, but seed prices held very firm there. Reports indicated that there was very satisfactory consumer demand for oil and shortening during the week.

Hedge selling was not pressed but was rather persistent on the May delivery. There was a little scattered liquidation in December oil, but this was hardly a market influence. Pressure of crude was not aggressive and in the Southeast crude pressure continued extremely light for this season.

Even in bearish quarters it is believed that cottonseed oil futures are not far from the probable low point of the season. Refiners are expected to take the entire crude cotton oil crush at the 4c level if it is available.

COCONUT OIL.—Trade was moderately active at New York, but the market was steadier due to firmness in copra. At New York, coconut oil was quoted at 2¼c in bulk. The Pacific coast market was 2½@2¼c.

CORN OIL.—Offerings from crushers continued scanty, but there was some buying interest at New York at 5½c.

SOYBEAN OIL.—It was estimated that 50 to 70 tanks of crude soybean oil

sold on a basis of 3¼c for November-December-January delivery, basis Decatur. It was reported that large producers sold, while packers were reported the best buyers. Subsequently, the market was called 3¼@3¼c. Sellers were asking 4c for March forward. There was little or no activity in the soybean oil futures market at New York.

PALM OIL.—Trade was rather quiet at New York with the market steady. Nigre spot in tanks was quoted at 2¼c and shipment at 2¼c; 12½ per cent acid, 2¼c spot and 1¼c shipment; Sumatra spot, 2¼c and shipment, 1¼c.

OLIVE OIL FOOTS.—The market was quiet at New York but rather firm. Tanks were 9c bid and 9¼c asked.

PEANUT OIL.—Moderate trading in southeastern crude peanut oil was reported during the week at 4¼c.

COTTONSEED OIL.—Valley crude was quoted Wednesday at 4¼c paid; Southeast, 4¼c bid, 4¼c asked; Texas, 4¼c bid at common points, Dallas, 4¼c nominal.

Futures market transactions for the week at New York were:

FRIDAY, OCTOBER 18, 1940

	Sales	—Range— High Low	—Closing— Bid Asked
November.....	6	550 545	540 nom
December.....	6	550 545	541 544
January.....	6	550 545	543 546
February.....	12	561 555	548 nom
March.....	23	570 562	555 trad
April.....	23	570 562	560 nom
May.....	23	570 562	561 562
June.....	23	570 562	565 nom

Sales, 41 contracts.

SATURDAY, OCTOBER 19, 1940

November.....	2	542 540	535 nom
December.....	2	542 540	538 541
January.....	2	542 540	540 543
February.....	2	542 540	543 nom
March.....	2	542 540	551 553
April.....	2	542 540	554 nom
May.....	7	561 560	560 trad
June.....	7	561 560	563 nom

Sales, 10 contracts.

MONDAY, OCTOBER 21, 1940

November.....	5	536 536	535 nom
December.....	5	539 535	536 539
January.....	5	539 535	539 541
February.....	24	551 545	542 nom
March.....	34	551 545	550 51 tr
April.....	39	557 553	554 nom
May.....	39	557 553	559 trad
June.....	39	557 553	562 nom

Sales, 73 contracts.

TUESDAY, OCTOBER 22, 1940

November.....	1	542 542	535 nom
December.....	1	542 542	539 542
January.....	1	542 542	542 545
February.....	7	554 552	545 nom
March.....	7	554 552	553 555
April.....	22	562 560	557 nom
May.....	22	562 560	561 trad
June.....	22	562 560	566 nom

Sales, 30 contracts.

WEDNESDAY, OCTOBER 23, 1940

November.....	4	545 545	540 nom
December.....	4	545 545	545 548
January.....	4	545 545	547 552
February.....	34	560 556	552 nom
March.....	34	560 556	560 561
April.....	88	568 563	565 nom
May.....	88	568 563	568 sales
June.....	88	568 563	572 nom

Sales, 126 contracts.

THURSDAY, OCTOBER 24, 1940

November.....	9	545 543	541 bid
December.....	9	545 543	544 bid
January.....	13	560 556	557 nom
May.....	28	568 563	564 bid

(See page 31 for later markets.)

VEGETABLE OILS

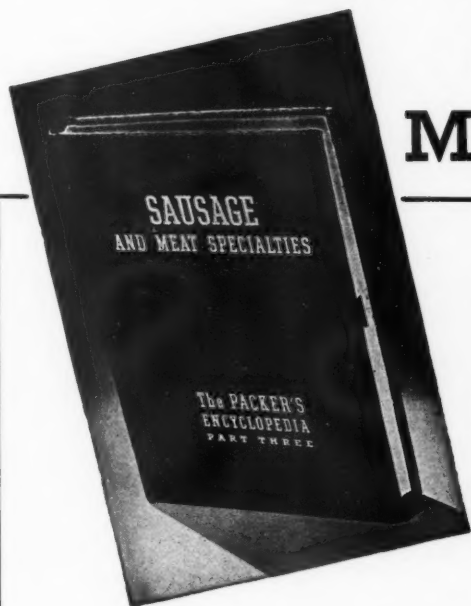
Crude cottonseed oil, in tanks, f.o.b. Valley points, prompt.....	4½@4¼
White deodorized, in bbls., f.o.b. Chgo.....	6 @6¼
Yellow, deodorized.....	6 @6¼
Soap stock, 50% f.f.a., f.o.b. consuming points.....	1
Soybean oil, f.o.b. mills, in tanks.....	3½@4
Corn oil, in tanks, f.o.b. mills.....	5 @5¼
Coconut oil, sellers tanks, f.o.b. coast.....	2½@2¼
Refined coconut, bbls., f.o.b. Chicago.....	7½@8

OLEOMARGARINE

F. O. B. CHICAGO

White domestic vegetable.....	14½
White animal fat.....	12½
Water churned pastry.....	13
Milk churned pastry.....	13
White "nut" type.....	8
Vegetable type.....	7¼

Is Cold Slowing Up Production In Your Sausage Manufacturing Room?



SAUSAGE AND MEAT SPECIALTIES

has the following to say in connection with temperature and humidity in the Meat Cooler:

"Temperature in the sausage meat cooler should be from 35 to 38 degrees or higher depending on the rapidity with which the sausage maker wishes the meat to cure. Meat cures faster at higher temperatures but it deteriorates more rapidly as the low temperature check on bacterial growth is removed. A curing temperature of 38 degrees has been specified in formulas in this book.

"The percentage of relative humidity in this room is important only to the extent that it should not be so high that salt in the product will attract moisture from the air continuously. On the other hand, it should be high enough to avoid excessive shrinkage and drying out of exposed meat. Allowance can be made for such shrinkage in the amount of ice or water placed in the emulsion during processing of some types of sausage.

"A relative humidity of 80 to 85 per cent usually is found satisfactory in the sausage meat cooler."

Efficient temperature and humidity conditions are given for each department of the plant in the chapter on "Refrigeration and Air Conditioning."

Refrigeration is a decided advantage in keeping product in good condition while in the sausage manufacturing room. Dexterity of workers, however, in this room is of paramount importance and there is a limit to the amount of refrigeration which can be used without impairing their efficiency.

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"Sausage & Meat Specialties," The National Provisioner's new book, the first of its kind on these important subjects, contains an entire chapter on "Refrigeration and Air Conditioning" in which this important subject as well as other aids to more profitable operation are thoroughly covered.

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THE NATIONAL PROVISIONER

407 South Dearborn Street, Chicago, Illinois

HIDES AND SKINS

Early packer hide trading at 1/2c up, with further 1/2c advance later on branded steers and branded cows—Packer calf and kips active at last weekend advance.

Chicago

PACKER HIDES.—The packer hide market was active and somewhat excited this week. Following the half-cent advance at the close of last week, all descriptions moved up another half-cent early this week, while trading on the following day was done at a further half-cent up on branded steers and branded cows. Reported sales so far total around 55,000 hides, mostly Oct. take-off. The trading at the close of last week ran up to around 23,000 hides, bringing the final total for last week to better than 65,000, and packers are keeping very closely sold up.

Hide futures worked up sharply late last week, with further moderate advances up to mid-week, when the spot market and futures parted company; futures sold off sharply and are now 16@33 points under last Friday, with the distant Sept. option at a discount of 56 points under Dec. Profit taking following the recent advance and some liquidation were charged with part of the decline, while pending negotiations regarding a new South American contract are thought to account partly for the weakness in the distant months.

However, the closely sold up condition of the spot market for hides, and the prospect of a good demand for the remaining Oct. hides for buyers who cannot use winter take-off, gives the market a strong appearance.

One packer sold 10,000 Sept.-Oct. native steers at 15c, and the Association moved 1,150 Oct. same basis; bid of 15c reported declined later. Extreme light native steers are quoted nominally at 15c and scarce.

Sales of 3,800 Oct. butt branded steers were made at the close of last week at 12 1/2c, with 1,500 more early this week at 13c, followed by 6,200 more Oct. butts at 13 1/2c. Late last week 4,000 more Oct. Colorados sold at 12c; 1,500 moved early this week at 12 1/2c, and 6,000 sold later at 13c. One sale of 1,000 heavy Texas steers was made at 13 1/2c; light Texas steers are nominal around 12 1/2c, and extreme light Texas steers quoted 13@13 1/2c nom.

One packer sold 5,000 Sept.-Oct. heavy native cows at the week's opening at 14 1/2c; this figure since declined, with 15c asked. Late last week 6,000 Oct. northern light native cows sold at 13 1/2c and 8,500 Oct. River point take-off at 14c; early this week, 1,500 Chgo. light native cows sold at 14c, and 1,500 St. Pauls sold later also at 14c; 1,000 Cedar Rapids take-off brought 14 1/4c, while there is an unconfirmed report that River points have sold at 14 1/2c;

the Association sold 2,000 Oct. light native cows at 14c. Packers sold 2,900 mostly Oct. branded cows early at 12 1/2c, and the Association 1,000 same basis; later, 9,000 Oct. branded cows made 13c.

Two packers each sold a car Sept.-Oct. native bulls early at 9 1/2c; branded bulls quotable a cent less.

An Iowa packer late this week sold a car butt branded steers at 13 1/2c, a car Colorados at 13c, and two cars branded cows at 13c, all Oct. take-off.

Withdrawals of hides from Exchange warehouses during first 22 days of Oct. totalled 81,952, compared with 59,034 during same period in Sept. Warehouse stocks on Oct. 22nd were down to 508,997 hides.

OUTSIDE SMALL PACKER HIDES.

—Some outside small packer all-weights around medium average weight sold early at 12c, selected, for natives, brands 1/2c less. With the firming of the packer market later, there was a good buying interest at 12@12 1/2c, depending upon average and take-off, with 47 lb. avge. reported possibly salable at 12 1/2c for good stock, while most offerings are held at 13c.

PACIFIC COAST.—The Coast market is well sold up to end of Sept. except for a few small lots, and there has been no trading since the sales of Sept. hides at 9 1/2c flat for steers and cows, f.o.b. shipping points. However, there are orders in the market at present at 11 1/2c flat for Oct. steers and cows but sellers are unwilling to offer until Oct. packs are closed.

FOREIGN WET SALTED HIDES.

—The South American market on standard steers was established 1 1/2c higher early this week on a sale of 4,500 Smithfield steers to the States at 85 pesos, equal to 12 1/2c, c.i.f. New York, as against 78 1/2 pesos or 11 1/2c paid last week. Further sales this basis were later made to Russia, including 2,500 Sansinenas, 4,500 Corpn. Smithfield, and 2,500 more Argentine steers, all at 85 pesos or 12 1/2c.

COUNTRY HIDES.—The country hide market advanced irregularly, demand being centered on buff weights and extremes, with a very slow call for other descriptions. Offerings of all-weights are very limited; couple cars untrimmed all-weights sold at 10 1/4c, flat, equal to 11c, selected, del'd Chgo., but doubtful if more could be bought this basis. Heavy steers and cows have found no outlet and are quoted nominally 8 1/2@9c trimmed. Buff weights quoted 11 1/4@11 1/2c, selected, for trimmed stock. Trimmed extremes quoted 13 1/4@13 1/2c, selected, with very few around. Bulls listed 7@7 1/4c; glues 8@8 1/2c flat; all-weight branded hides 9 1/2@9 3/4c flat nom.

CALFSKINS.—Packer northern heavy calfskins were active this week at the advanced price established late

last week and previously reported. Three packers each moved a car of Oct. northern heavies, totalling about 13,000, this week at 28c. The differential on River point heavies 9 1/2/15 lb. narrowed 1/2c when two packers each sold a car, or a total of about 9,000, at 27c. The market on light calf under 9 1/2 lb. was established at 21 1/2c on the sale of 6,000 Sept.-Oct. lights by one packer, fixing the spread under the heavies at 1/2c more than a month back.

Chicago city 8/10 lb. calfskins sold at 18 1/2c for a part-car at the close of last week, and a car Detroit cities was reported at 23c; collectors have been talking a cent more but there are no bids apparent at the moment, although receipts are reported to be light. Straight countries are quoted around 15@15 1/2c flat. Chgo. city light calf and deacons last sold at \$1.35; buyers talking \$1.25@1.30 nom. at present.

KIPSKINS.—Packer kipskins were moderately active at the prices established late last week, reported trading so far being confined to one packer. Following the sale of northern native kips late last week at 22c, 4,000 mostly Oct. southern natives sold early this week at 21c, steady basis. Same packer also sold 2,000 Oct. northern over-weights at 21c, and 2,000 southern over-weights at 20c. Branded kips quoted 18 1/2@19c nom., pending trading to establish this market.

Chicago city kipskins are quoted around 19 1/2c nom.; there has been no recent trading and a few have been offered at 20c but accumulation is slow. Straight countries quoted around 14c flat.

A few packer regular slunks were reported sold at \$1.00, in line with the bid late last week, but this bid apparently was not renewed.

HORSEHIDES.—The market is strong on horsehides, with production light and a ready market for offerings of good stock. City renderers, with manes and tails, have sold at \$5.75, selected, f.o.b. nearby points, and this figure is available for choice offerings; ordinary trimmed renderers are salable around \$5.50, del'd Chgo.; mixed city and country lots quoted \$5.00@5.25, Chgo., according to lot.

SHEEPSKINS.—Dry pelts quoted nominally 21@22c per lb., del'd Chgo., with offerings light. The present light production of packer shearlings limits trading to small lots but a fair demand is reported for good stock; one house reports sales in a small way at \$1.60@1.65 for No. 1's, \$1.15 for No. 2's and around 60c for No. 3's, very few of the last grade being produced. A part-car lot is offered in another direction at \$1.60 for No. 1's and \$1.05@1.10 for No. 2's, with No. 3's offered. Small packer shearlings quoted one-half to two-thirds packer values. Pickled skins are well sold up in most directions and quoted \$5.00@5.25 per doz. packer production; a few reported available at top price. Packer woolled pelts are firm, with \$2.25 per cwt. live weight basis last paid in a good way on outside

packer Oct. pelts; sales in a small way reported at \$2.30@2.35 per cwt., and unconfirmed report that \$2.45 per cwt. live basis was paid on one lot; outside small packer stock quoted at usual discount.

New York

PACKER HIDES.—Native steers advanced a full cent in the New York market when three cars of Oct. natives sold this week at 16c. One packer sold 1,200 Oct. butt branded steers at the close of last week at 12½c, and 1,500 more moved early this week at 13c, with this figure later declined. Total of 2,500 Oct. Colorados sold early this week at 12½c, but further business this basis declined. Branded steers quoted nominally ½c higher now, on a parity with western market.

CALFSKINS.—Such trading as has come to light in the eastern calfskin market this week has not been broad enough to permit anything but nominal quotations on most descriptions. Collectors sold 2,000 of the 5-7's at \$1.60, and 2,000 of 7-9's at \$2.25, but now ask higher; 9-12's are nominal around \$3.50. No packer trading has come to light; some quote packer 5-7's around \$1.90@1.95 nom., and 7-9's around \$2.60@2.65; the 9-12's sold last week at \$3.75 but now talking higher.

NEW YORK HIDE FUTURES

Monday, Oct. 21.—Close: Dec. 12.88; Mar. 12.53; June 12.43@12.50; Sept. 12.46 b; 107 lots; 3 higher to 5 lower.

Tuesday, Oct. 22.—Close: Dec. 13.15; Mar. 12.74@12.76; June 12.60@12.65; Sept. 12.60@12.66; 178 lots; 14@27 higher.

Wednesday, Oct. 23.—Close: Dec. 12.88; Mar. 12.43; June 12.18 n; Sept. 12.18 n; 267 lots; 27@42 lower.

Thursday, Oct. 24.—Close: Dec. 12.46@12.48; Mar. 12.07@12.10; June 11.90@12.00; Sept. 11.90 n; 259 lots; 28@42 lower.

Friday, Oct. 25.—Close: Dec. 12.50@12.53; Mar. 12.13@12.15; June 12.03 n; Sept. 12.03 b; 193 lots, 4@13 higher.

CHICAGO COTTON OIL

Monday, Oct. 21.—Close: Oct. 5.38 n; Dec. 5.40 ax; Jan. 5.43 ax; Mar. 5.50 ax; May 5.58 ax; cash close 5.40 n.

Tuesday, Oct. 22.—Close: Oct. 5.38 n; Dec. 5.40 ax; Jan. 5.43 ax; Mar. 5.50 ax; May 5.58 ax; cash close 5.40 n.

Wednesday, Oct. 23.—Close: Oct. 5.38 n; Dec. 5.40 ax; Jan. 5.43 ax; Mar. 5.50 ax; May 5.58 ax; cash close 5.40 n.

Thursday, Oct. 24.—Close: Oct. 5.38 n; Dec. 5.40 ax; Jan. 5.43 ax; Mar. 5.50 ax; May 5.58 ax; cash close 5.40 n.

Friday, Oct. 25.—Close: Dec. 5.40 ax; Jan. 5.43 ax; Mar. 5.50 ax; May 5.57 ax; cash close 5.40 n.

WEEK'S CLOSING MARKETS

FRIDAY'S CLOSING

Provisions

Lard was weaker the latter part of the week on liquidation, lower grains, hedging and unsteady hogs. Reports were current that England bought or was going to buy about 20 million lbs. of lard. Good quantities are on order elsewhere in Europe awaiting navicerts.

Cottonseed Oil

Cotton oil was easier on liquidation, lard weakness and less pressure on hedges but buying power was poor and prices were within a few points of the season's lows. Southeast crude, 4¼c @ 4½c lb.; Valley, 4¼c lb. bid; Texas, 4.20@4.30c lb.

Quotations on bleachable cottonseed oil at close of New York market Friday were: Dec. 5.40 ax; Jan. 5.41@5.46; Mar. 5.54@5.56; May 5.63 ax; 28 lots; closing steady.

Tallow

New York extra tallow, 4¼c lb.

Stearine

Stearine was quoted 6¼c lb.

Friday's Lard Markets

New York, October 25, 1940.—Prices are for export. Lard, prime western, 5½@6c; middle western, 5.00@5.10c; city, 4¼@4½c; refined continent, 5½@6c; South American, 6¼c; Brazil kegs, 6¼@6½c; shortening 7¼c.

CHICAGO HIDE MOVEMENT

Receipts of hides at Chicago for the week ended October 19, 1940, were 5,963,000 lbs.; previous week 4,481,000 lbs.; same week last year 4,609,000 lbs.; Jan. 1 to date, 193,113,000 lbs.; same period last year, 195,109,000 lbs.

Shipments of hides from Chicago for week ended October 19, 1940, were 6,709,000 lbs.; previous week 5,872,000 lbs.; same week last year 5,406,000 lbs.; Jan. 1 to date, 221,455,000 lbs.; same period last year, 208,354,000 lbs.

CANADIAN EXPORTS TO U. S.

Exports of Canadian livestock and meats to the United States in September and the first nine months of 1940:

	Sept. 1940	Sept. 1939	9 mos. 1940	9 mos. 1939
Cattle, no.	16,212	12,416	105,444	157,431
Calves, no.	5,328	3,942	69,585	75,215
Hogs, no.	6	17	23	88
Sheep, no.	534	434	2,114	1,831
Beef, lbs.	45,700	9,900	335,700	748,100
Bacon and ham, lbs.	30,100	42,400	286,300	426,900
Pork, lbs.	200,000	95,500	2,021,300	1,513,800
Canned meats, lbs.		28	18,587	2,081

CHICAGO HIDE QUOTATIONS

Quotations on hides at Chicago for the week ended Oct. 25, 1940, with comparisons:

	PACKER HIDES		Cor. week, 1939
	Week ended Oct. 25	Prev. week (Rev.)	
Hvy. nat. str.	@13	@14½	@16
Hvy. Tex. str.	@13½	@12½	@15½
Hvy. butt brnd'd	@13½	@12½	@15½
stra.	@13½	@12½	@15½
Hvy. Col. str.	@13	@12	@15
Ex-light Tex.			
stra.	@13½	@12½	@15
Brnd'd cows . .	@13	@12	@15
Hvy. nat. cows.14½	@15	@14b	@15½
Lt. nat. cows.14	@14½	@14	@15½
Nat. bulls . . .	@9½	@9	@11½
Brnd'd bulls . .	@8½	@8	@10½
Calfskins	@21½	@21	@28n
Kips, nat.	@22	@22	@23
Kips, ov-wt. . . .	@21	@21n	@22
Kips, brnd'd . .	@19n	@19n	@20
Slunks, reg. . . .	@1.00	@1.00	@1.15
Slunks, hrls. . .	@60	@60	@60

Light native, butt branded and Colorado steers 1c per lb. less than heavies.

CITY AND OUTSIDE SMALL PACKERS

Nat. all-wts. . . .	@12	@13	11½@12	14 @14½
Branded	@11½	@12½	11 @11½	13½@14
Nat. bulls	@8	7½@7¾	7 @7¾	10 @10½
Brnd'd bulls . . .	@7½	7 @7¾	7 @7¾	9 @9½
Calfskins	@18½	@23	18 @23	23 @24
Kips	@19½n	19 @19½n	19 @19½n	21 @21n
Slunks, reg. . . .	@85n	@80n	@80n	@1.00
Slunks, hrls. . .	@50n	@50n	45 @50	@50

COUNTRY HIDES

Hvy. steers	8¼@9	8¼@8¼	11 @11¼
Hvy. cows	8¼@9	8¼@8¼	11 @11¼
Buffs	11¼@11½	10¼@11	12 @12½
Extremes	13¼@13½	12¼@13	14½@15
Bulls	7 @7¼	6¾@7	8¾@9
Calfskins	@15	@15½	17 @17½
Kipskins	@14	13¼@14	@16½
Horsehides	5.00@5.75	4.80@5.50	4.50@5.25

SHEEPSKINS

Pkr. shearlgs. . .	@1.60	@1.50	@1.50
Dry pelts	@22	20½@21½	22 @23

MEAT IMPORTS AT NEW YORK

Imports for the period October 10 to October 16, inclusive, at New York were as follows:

Point of origin	Commodity	Amount, lbs.
Argentina	Canned corned beef.	43,956
	—Canned roast beef.	26,995
	—Canned corned beef hash.	37,200
	—Canned brisket beef.	1,824
Canada	Fresh chilled ham.	5,754
	—Fresh frozen ham.	47,504
	—Fresh pork trimmings.	1,500
	—Fresh chilled pork trimmings.	15,438
	—Fresh pork shoulders.	4,494
	—Fresh chilled pork tenderloins.	3,960
	—Canned cooked ham.	1,192
	—Smoked back bacon.	3,220
	—Dried pork	180
	—Dried bacon	175
	—Fresh chilled beef.	511
	—Dried beef	6
	—Fresh chilled lamb livers.	300
	—Fresh frozen beef livers.	104
	—Dried backfat and liver.	35
	—Sausage	20
	—Dried pork sausage.	1,060
Cuba	Fresh frozen veal sides.	4,040
	—3,396 quarters fresh chilled beef.	550,541
	—Canned corned beef.	1,800
Uruguay	S. P. pork butts.	4,140

ARGENTINE BEEF EXPORTS

Cable reports of Argentine exports of beef this week up to October 25, 1940: To the United Kingdom, 28,911 quarters; to the Continent, none. A week ago, to the United Kingdom, 23,585 quarters; to the Continent, none.

Properties of Stainless Steel

(Continued from page 12.)

pressure, high-temperature piping, and is very valuable in power plant operation.

Non-Magnetic and Lustrous

An extraordinary property of the most common type of stainless steel is that it is non-magnetic. On this account it is desirable for certain electrical applications, for use around compasses and in watches. Incidentally, the permanent luster and beauty of stainless steel account for many interesting applications to which ordinary steels would be unsuited because susceptible to loss of finish by rust and corrosion.

The heat resisting quality of stainless steel has been mentioned; it is equally resistant to sub-zero temperatures. Some metals become brittle when cold, but stainless steel, even after welding and drastic forming operations, remains ductile and resistant to corrosion at low temperatures. This durability is demonstrated through service in the evaporators of mechanical refrigerators.

No other metal can take the place of stainless steel in all of its varied applications. There are other properties, too, and specialized applications without end. Its optical properties may make it suitable for use in the reflecting mirrors of telescopes. Because of its luster, its heat conductivity and its high coeffi-

cient of reflection in the ultra-violet, stainless steel will become of increasing value to the astronomer.

While the principal applications of stainless steel are in the architectural, mechanical, chemical and allied industries, its versatility promises to bring it into every field. Its resistance to corrosion may be paramount, but its other properties may be considered profitable in any problem of design. Total properties give it a range far greater than if it were merely "stainless steel."

GREASEPROOFING BOXES

A small sausage manufacturer who is purchasing new trucks with wood bodies for handling fresh and cured meats asks how the wood can be greaseproofed.

Wood boxes and cardboard containers may be greaseproofed by applying the following mixture:

Fish glue	16 oz.
Resin	2 dr.
Litharge	1/2 oz.
Kaolin	1/2 oz.
Glycerine	1/2 oz.
Water	40 oz.

The glycerine, glue, litharge and part of the water are boiled together until solution occurs; the other ingredients are then added and the solution is mixed thoroughly. The liquid is applied with a brush to the inside of wood and cardboard containers and is allowed to dry.

Rancidity and Oxidation

(Continued from page 11.)

er, in which guaiacol from gum guaiac is the active antioxidant.

METHODS AND TYPES

The next two papers in this symposium dealt with matters of great importance to the fat chemist, but of less interest to the lard producer. Dr. Frank C. Vibrans of the Institute of American Meat Packers discussed "Methods of Measuring the Rate and Extent of Oxidation of Fats." He pointed out that those tests which show the present state of oxidation of fats (such as the Kreis test) indicate little about their keeping qualities. Such tests take no account of the time the fat has been aging, which is an important factor in the stability of the material.

The second paper by J. E. Meyers, J. P. Kass and G. O. Burr of the University of Minnesota was entitled "Comparative Rates of Oxidation of Isomeric Linolenic Acids and their Esters." An interesting point brought out by this study was the fact that free fatty acids oxidize more readily than their esters (the fats from which the fatty acids were derived). This should explain the well-known fact that lards high in free fatty acids turn rancid more rapidly than lards low in free fatty acids. These latter compounds evidently have a catalyzing effect.

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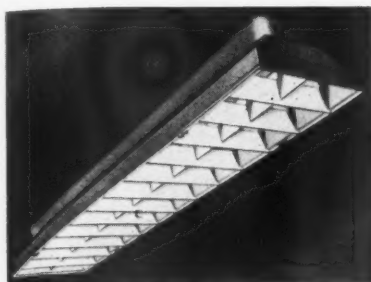
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NEW EQUIPMENT *and Supplies*

LAMP SHIELDING LOUVERS

Detachable louvers, designed to provide additional shielding and greater eye comfort and freedom from glare



PREVENTS OVERHEAD GLARE

Louvers are designed to provide additional shielding, greater eye comfort and freedom from glare.

in drafting rooms, laboratories, offices and many industrial and commercial locations, are now available for "Stream-Liter" fluorescent lamp fixtures, it has been announced by the Benjamin Electric Co., Chicago. Shielding angle is increased to approximately 23 degs. in all directions, it is reported by the company.

Louvers are of steel, designed in the so-called "egg crate" construction, and are finished in special high reflector factor white enamel. They are welded into a rigid assembly at each interlocking point and the entire unit is welded to a rectangular frame rail which fits inconspicuously into the bead of the reflector. Sturdy, yet light in weight, they are not easily damaged or bent during cleaning or relamping.

Two spring clamps on each side rail snap over the reflector bead to hold the louvers in position. Unsnapping the clamps make it possible to remove the louvers for relamping the fixtures.

MEAT PLANT HOIST

A new kind of hoist for meat plant use has been placed on the market by Robbins & Myers, Inc., Springfield, O. Base frame is of welded steel channel construction requiring little superstructure frame work to support it. Drum is of steel pipe and steel plate flanges welded into a unit. Drum shaft bracket is also of welded steel and bolts to the channel base. A worm drive unit housed within an oiltight casing drives the drum.

Worm is of heat treated nickel steel, and is ground to size. Worm gear is of

special chill cast bronze, and has hobbled teeth of 30-deg. pressure angle. Worm drive is of the self-locking type so that load is held safely without regard for the operator. A magnetic disc brake controls the load automatically, preventing any sudden drop of product.

A choice of methods is offered: Either by control moisture-proof push button with magnetic contractors, or rope-operated from controllers. An upper limit switch prevents over-travel of the hook. Motor is of the totally-enclosed, high torque, hoist duty construction and can handle usual and unusual loads. Hoist chain is made of welded steel links to which a drop forged steel shackle is attached. A swivel drop forged steel hook hangs in the shackle for easy handling.

FOUR-CYLINDER ENGINE

The Ford truck line for 1941 includes a four-cylinder engine designed for service where economy is paramount. It develops 30 h.p. at 2,800 r.p.m. and 84 ft.-lbs. torque at 1,000 r.p.m. Cylinders are 3.187 by 3.75 in. with a total displacement of 119.5 cu. in.

Improvements on the 85- and 95-h.p. V-8 engines are also announced by Ford. These include new bolted-on camshaft gears and valve stems are hardened further where they fit into guides. Engine vacuum connection is located on manifold riser for improved operation of windshield wiper and distributor governor. Either of these V-8 engines is available in the 158-in. and 134-in. wheelbase conventional and cab-over-engine trucks.

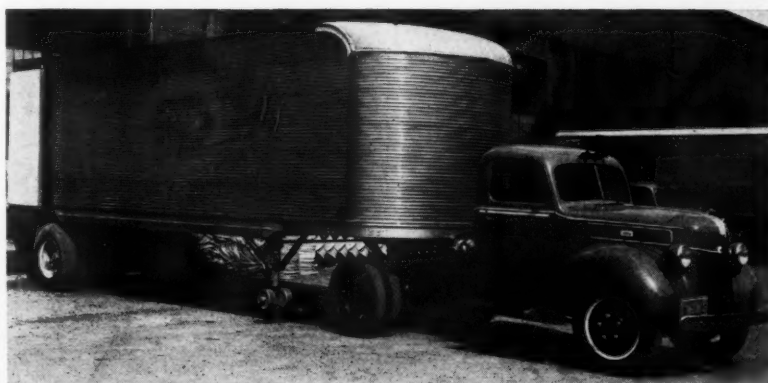
BLOCK AND PIPE INSULATION

A new 1500-deg. F. insulating material known as L-W Superex has recently been introduced by Johns-Manville. Furnished in both block and pipe covering form, this new material was developed by the J-M research laboratories and is said to represent a marked improvement in conductivity and strength for an insulation in the service temperature range above 600 degs. Fahrenheit.

L-W Superex is offered for use generally in stationary and marine power plant equipment and piping, the blocks being suitable for use in industrial furnaces, ovens, kilns, roaster regenerators, high temperature mains, flues and stacks, where insulation will be subjected to temperatures between 600 and 1500 degs. F. The sectional form is intended for piping and headers within the same range of operating temperature.

This insulation is of the moulded diatomaceous silica type and weighs only 20 lb. per cu. ft. The blocks are furnished 3 in., 6 in., 9 in., and 12 in. wide in standard lengths of 18 in. and 36 in. and in thicknesses from 1 in. to 4 in. Curved blocks are also available. The pipe insulation is supplied to fit standard pipe sizes, in sections or segments 3 ft. long and up to 2½ in. thick. L-W Superex is marked with green ends to distinguish it from 85 per cent magnesia and H-T (1,900 deg.) Superex.

Watch the Classified Advertisements page for bargains in equipment.



NEW SEMI-TRAILER UNIT FOR BULKY LOADS

This 95-h.p. V-8 tractor-trailer unit is suitable for handling big, bulky loads. Packers who must meet special conditions, such as the transportation of full loads in one direction and light loads in the other, may have their tractor equipped with a two-speed axle to reduce operating cost when hauling a light load.

LIVESTOCK MARKETS *Weekly Review*

Fall Pig Crop Down— Fewer Hogs in 1941

THE seasonal increase in hog marketings now in progress is expected to continue into December according to the U. S. Bureau of Agricultural Economics. This will be followed by a seasonal reduction in marketings in the late winter. For the 1940-41 marketing year, which began October 1, hog marketings are expected to be about 10 per cent smaller than in 1939-40. The percentage of decline in the 1940 fall pig crop is somewhat greater than in the 1940 spring crop. As a consequence, hog marketings probably will be reduced relatively more from a year earlier in the last half of the 1940-41 marketing year than in the first half.

The supply of beef and veal produced in 1941 probably will not differ greatly from the 1940 production, with an increase more likely than a decrease. In view of prospective substantial improvement in consumer demand for meats, the general level of cattle prices in 1941 is expected to be higher than in 1940.

Lamb Supply About Same

Slaughter supplies of sheep and lambs in the 1940-41 fed-lamb marketing season (December to April) probably will not show much change from a year earlier. Prices of lambs in the coming fed-lamb season, however, are expected to average higher than in the 1939-40 season. Stronger consumer demand for meats and higher prices for wool and pelts will be supporting factors to prices of slaughter lambs and sheep during next year.

Hog prices in 1940-41 are expected to average materially higher than in 1939-40. The rise will reflect not only the decreases in hog marketings but also the substantial improvement in

domestic consumer demand in prospect. Export demand for pork and lard in 1940-41 probably will be little, if any, better than in 1939.

Canada Hopes For Larger Bacon Contract for 1941

MONTREAL.—Canada's bacon surplus is now of small proportions. In recent weeks, shipments to Britain have been well in advance of the arranged purchases of 5,600,000 lbs. per week, sometimes being as high as 7,840,000 lbs., and it has been suggested that the British may agree to increase the quota.

Canadian bacon sales to the United Kingdom in the coming year are expected to increase approximately 40 per cent, with weekly shipments from the Dominion varying between seven and eight million lbs. instead of between five and six million.

An agreement by which Britain undertook to buy between five and six million lbs. of bacon weekly expires at the end of this month. It is believed that the Canadian mission, headed by J. G. Gardiner, Minister of Agriculture, now in London, is negotiating for increased bacon deliveries overseas.

While confidently expecting larger bacon purchases from the United Kingdom, there is some doubt that the present price of \$18.01 per short hundredweight can be maintained. It is pointed out, for example, that Britain could have bought her bacon at a considerably lower rate last year had she been paying only the Canadian market rate. Never, in the past year, has the Canadian domestic price of bacon been at the level paid by Britain.

A contract for seven to eight million lbs. weekly would, it is believed, satisfy hog men and would just about take care of the increased hog production.

INTERNATIONAL SHOW SOON

Final event on the continent's annual livestock show and agricultural fair calendar is the International Live Stock Exposition and Horse Show, which will celebrate its forty-first anniversary this fall from November 30 to December 7. It will be held in the International Amphitheatre at the Chicago Union Stock Yards.

Exhibitors will be paid approximately \$100,000 in cash premiums, plus numerous trophies and medals that will be offered in many of the breed competitions.

The classification includes 30 breeds of beef cattle, draft horses, sheep, and swine. Stockmen have until November 1 to file entries.

CORN BELT DIRECT TRADING

(Reported by U. S. Department of Agriculture, Agricultural Marketing Service.)

Des Moines, Ia., Oct. 24, 1940.—At 16 concentration points and 10 packing plants in Iowa and Minnesota hog receipts continued above the previous October record. Current prices were steady to 10c lower, but occasionally sows were 5c up.

Hogs, good to choice:

160-180 lb.	\$4.85@5.80
180-200 lb.	5.60@6.05
200-270 lb.	5.90@6.20
270-300 lb.	5.80@6.15
300-330 lb.	5.70@6.05
330-360 lb.	5.60@5.95

Sows:

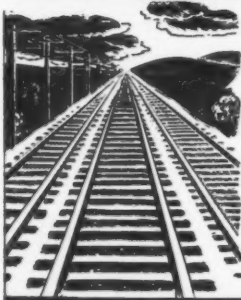
330 lbs. down.	\$5.45@5.75
330-360 lb.	5.40@5.75
360-400 lb.	5.30@5.65
400-500 lb.	5.00@5.55

Receipts of hogs at Corn Belt markets for week ended with October 24, 1940:

	This week.	Last week.
Friday, Oct. 18.	20,500	33,900
Saturday, Oct. 19.	21,300	29,400
Monday, Oct. 21.	39,400	35,600
Tuesday, Oct. 22.	22,700	28,000
Wednesday, Oct. 23.	25,900	28,800
Thursday, Oct. 24.	32,000	29,500

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New York City

NEW YORK LIVESTOCK

Livestock prices at New York, Wednesday, October 23, 1940:

CATTLE:

Steers, common and medium.....	@nom.
Cows, medium.....	\$ 6.25@ 6.50
Cows, cutter and common.....	5.25@ 5.75
Bulls, good.....	7.25@ 7.50
Bulls, medium.....	6.25@ 6.75

CALVES:

Vealers, good and choice.....	\$11.50@14.00
Vealers, common and medium.....	8.50@10.50
Vealers, culls.....	6.50@ 7.50
Calves, common and good.....	7.75

HOGS:

Hogs, good and choice, 181-202-lb..	\$ 6.60
Packing sows, 268-lb.....	4.85

LAMBS:

Lambs, good, 80-lb.....	\$ 9.00
Lambs, common, 65-lb.....	6.50
Ewes.....	2.75@ 3.50

Receipts of salable livestock at Jersey City public market for the week ended with October 19:

	Cattle	Calves	Hogs*	Sheep
Salable receipts.....	2,284	2,438	311	1,770
Total, with directs..	6,134	11,705	28,327	36,844
Previous week:				
Salable receipts..	2,648	2,636	455	3,088
Total, with directs	7,485	13,027	28,567	51,178
*Including hogs at 41st street.				

SOUTHEASTERN LIVESTOCK

Combined receipts of livestock, as reported by the Agricultural Marketing Service, at seven southern packing plants, for week ended October 19:

	Cattle	Calves	Hogs
Week ended Oct. 19.....	2,708	1,511	8,072
Previous week.....	1,988	715	7,281
Same period 1939.....	3,074	827	11,564

Southeastern area slaughter hogs, bulk quotations, soft hog basis, Oct. 22:

Hogs, medium to choice:	
240 lbs. and over.....	\$5.50@5.75
180-240 lbs.....	5.75@6.00
150-180 lbs.....	5.50@5.75
130-150 lbs.....	5.00@5.25

Sows, medium and good:

240 lbs. and over.....	4.50@4.75
180-240 lbs.....	4.75@5.00
150-180 lbs.....	4.50@4.75

STOCKERS AND FEEDERS

Stocker and feeder shipments received in the Corn Belt states in September, and nine months' totals:

	Cattle and Calves	Sept.	Sept.
	1940	1939	
Stockyards.....	222,594	195,614	
Direct.....	163,802	158,331	
Total, September.....	386,396	353,945	
Total 9 mos.....	803,459	714,271	
	Sheep and Lambs	Sept.	Sept.
	1940	1939	
Stockyards.....	176,734	157,031	
Direct.....	774,607	684,886	
Total, September.....	951,341	841,917	
Total 9 mos.....	1,533,661	1,420,058	

SOUTHERN LIVESTOCK KILL

Livestock slaughtered in packing plants and abattoirs during September, 1940, in the states of Alabama, Florida and Georgia, with comparisons:

	Sept.	Sept.	9 mos.	9 mos.
	1940	1939	1940	1939
Cattle.....	41,353	40,183	287,867	301,568
Calves.....	19,962	18,714	113,259	111,315
Hogs.....	73,528	72,270	869,854	845,184
Sheep.....	698	384	6,034	5,910

LIVESTOCK PRICES AT LEADING MARKETS

Livestock prices at five leading western markets, Thursday, October 24, 1940, as reported by U. S. Department of Agriculture, Agricultural Marketing Service:

Hogs (soft & oily not quoted): CHICAGO NAT. STK. YDS. OMAHA KANS. CITY ST. PAUL

BARROWS AND GILTS:

Good-choice:

120-140 lbs.....	\$ 4.90@ 5.50	\$ 5.00@ 5.40	\$ 5.15@ 5.75	\$ 4.75@ 5.50	\$ 5.00@ 5.40
140-160 lbs.....	5.25@ 6.00	5.35@ 5.80	5.15@ 5.75	5.10@ 5.75	5.15@ 5.60
160-180 lbs.....	5.75@ 6.25	5.75@ 6.10	5.50@ 6.00	5.35@ 6.10	5.60@ 5.85
180-200 lbs.....	6.10@ 6.40	6.00@ 6.30	5.85@ 6.15	5.75@ 6.15	5.70@ 5.95
200-220 lbs.....	6.25@ 6.45	6.25@ 6.35	6.00@ 6.15	6.00@ 6.15	5.90@ 6.00
220-240 lbs.....	6.35@ 6.50	6.25@ 6.35	6.00@ 6.15	6.05@ 6.15	5.90@ 6.00
240-270 lbs.....	6.35@ 6.50	6.25@ 6.35	6.00@ 6.10	6.05@ 6.15	6.00 only
270-300 lbs.....	6.35@ 6.50	6.20@ 6.35	6.00@ 6.10	6.05@ 6.15	6.00 only
300-330 lbs.....	6.30@ 6.45	6.15@ 6.25	6.00@ 6.10	6.05@ 6.15	5.90@ 6.00
330-360 lbs.....	6.25@ 6.40	6.10@ 6.20	6.00@ 6.10	6.00@ 6.10	5.85@ 5.95

Medium:

160-220 lbs.....	5.25@ 6.25	5.15@ 6.10	5.10@ 5.85	5.10@ 6.00	5.50@ 5.90
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SOWS:

Good and choice:

270-300 lbs.....	6.20@ 6.35	6.10@ 6.25	5.90@ 6.00	5.90@ 6.10	5.65 only
300-330 lbs.....	6.15@ 6.30	6.05@ 6.25	5.90@ 6.00	5.90@ 6.10	5.65 only
330-360 lbs.....	6.10@ 6.20	5.90@ 6.20	5.85@ 5.90	5.85@ 6.00	5.65 only

Good:

360-400 lbs.....	6.00@ 6.15	5.80@ 6.10	5.85@ 5.90	5.75@ 5.90	5.65 only
400-450 lbs.....	5.90@ 6.10	5.65@ 6.00	5.80@ 5.90	5.65@ 5.85	5.65 only
450-500 lbs.....	5.80@ 5.95	5.55@ 5.80	5.75@ 5.85	5.50@ 5.75	5.65 only

Medium:

250-500 lbs.....	4.85@ 5.85	5.10@ 5.80	5.35@ 5.75	5.40@ 5.90	5.40@ 5.55
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PIGS (Slaughter):

Med. & good, 90-120 lbs.	4.50@ 5.15	5.00@ 5.15			
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Slaughter Cattle, Vealers and Calves:

STEERS, choice:

750-900 lbs.....	12.00@13.50	11.50@13.00	11.25@12.75	11.50@13.00	11.50@12.75
900-1100 lbs.....	12.25@14.00	11.75@13.25	11.50@13.25	11.75@13.25	11.50@13.25
1100-1300 lbs.....	12.75@14.00	12.00@13.50	11.75@13.25	12.00@13.25	11.75@13.25
1300-1500 lbs.....	13.00@14.00	12.00@13.50	12.00@13.25	12.00@13.25	11.75@13.25

STEERS, good:

750-900 lbs.....	10.50@12.00	10.00@11.75	9.75@11.50	9.75@11.75	9.75@11.50
900-1100 lbs.....	10.75@12.50	10.25@12.00	10.00@12.00	10.00@12.00	9.75@11.50
1100-1300 lbs.....	10.75@12.75	10.50@12.00	10.00@12.00	10.00@12.00	9.75@11.75
1300-1500 lbs.....	11.00@13.00	10.50@12.00	10.00@11.75	10.00@12.00	9.75@11.75

STEERS, medium:

750-1100 lbs.....	8.00@10.50	7.50@10.25	7.75@10.00	7.50@10.00	7.75@ 9.75
1100-1300 lbs.....	8.00@10.75	7.50@10.50	8.00@10.00	7.50@10.00	7.75@ 9.75

STEERS, common:

750-1100 lbs.....	6.50@ 8.00	6.50@ 7.50	6.25@ 8.00	6.00@ 7.50	6.00@ 7.75
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STEERS, HEIFERS AND MIXED:

Choice, 500-750 lbs.....	11.75@12.50	10.75@12.00	10.50@12.00	10.75@12.00	11.25@12.50
Good, 500-700 lbs.....	10.25@11.75	9.50@10.75	9.25@10.50	9.25@10.75	9.75@11.25

HEIFERS:

Choice, 750-900 lbs.....	11.75@12.75	10.75@12.00	10.50@12.00	10.75@12.50	10.75@12.00
Good, 750-900 lbs.....	10.25@11.75	9.50@10.75	9.50@10.50	9.25@10.75	9.25@10.75
Medium, 500-900 lbs.....	7.50@10.25	7.25@ 9.50	7.50@ 9.50	7.00@ 9.25	7.50@ 9.25
Common, 500-900 lbs.....	6.00@ 7.50	5.75@ 7.25	6.00@ 7.50	5.75@ 7.00	5.50@ 7.50

COWS, all weights:

Good.....	6.75@ 7.50	6.00@ 7.25	6.50@ 7.25	6.50@ 7.50	6.50@ 7.25
Medium.....	5.75@ 6.75	5.50@ 6.00	5.50@ 6.50	5.75@ 6.50	5.50@ 6.50
Cutter and common.....	4.50@ 5.75	4.50@ 5.50	4.50@ 5.50	4.50@ 5.75	4.00@ 5.50
Canner.....	3.50@ 4.50	3.25@ 4.50	4.00@ 4.50	3.75@ 4.50	3.50@ 4.00

BULLS (Ylgs. Excl.), all weights:

Beef, good.....	7.00@ 7.25	6.25@ 6.75	6.50@ 7.25	6.35@ 6.75	6.50@ 7.00
Sausage, good.....	6.50@ 7.15	6.00@ 6.50	6.25@ 6.75	6.35@ 6.60	6.25@ 6.50
Sausage, medium.....	6.00@ 6.50	5.50@ 6.00	6.00@ 6.25	5.75@ 6.35	5.50@ 6.25
Sausage, cutter and com.....	5.50@ 6.00	4.75@ 5.50	6.00@ 6.25	4.75@ 5.75	4.25@ 5.50

VEALERS, all weights:

Good and choice.....	10.00@11.50	10.25@11.50	8.50@10.00	9.00@11.00	8.00@10.50
Common and medium.....	7.50@10.00	8.00@10.25	6.00@ 8.50	6.00@ 9.00	6.00@ 8.00
Cull.....	6.00@ 7.50	4.75@ 8.00	5.00@ 6.00	5.00@ 6.00	4.00@ 6.00

CALVES, 400 lbs. down:

Good and choice.....	8.00@ 9.00	7.50@ 9.00	7.00@ 9.00	7.25@ 9.00	7.00@ 8.50
Common and medium.....	6.00@ 8.00	6.00@ 7.50	6.00@ 7.00	5.50@ 7.25	5.00@ 7.00
Cull.....	4.50@ 6.00	4.50@ 6.00	5.00@ 6.00	4.50@ 5.50	3.50@ 5.00

Slaughter Lambs and Sheep:¹

SPRING LAMBS:

*Good and choice.....	9.40@ 9.60	9.00@ 9.50	9.25@ 9.40	9.25@ 9.50	9.00@ 9.25
*Medium and good.....	8.25@ 9.25	8.00@ 8.75	8.00@ 9.10	8.00@ 9.00	8.25@ 8.55
Common.....	6.50@ 8.00	6.50@ 7.75	6.75@ 8.00	6.50@ 7.75	6.25@ 8.00

YEARLING WETHERS (shorn):

Good and choice.....	7.65@ 8.25	7.00@ 8.00	7.25@ 8.25	7.00@ 7.75	7.25@ 8.00
Medium.....	6.50@ 7.65	6.25@ 7.00	6.50@ 7.25	6.25@ 7.00	6.50@ 7.25

EWES (shorn):

Good and choice.....	3.50@ 4.50	3.00@ 4.00	3.00@ 4.00	3.25@ 4.15	3.00@ 3.75
Common and medium.....	2.50@ 3.50	1.75@ 3.00	1.75@ 3.00	2.00@ 3.25	1.50@ 3.00

¹ Quotations based on animals of current seasonal market weights and wool growth. Shorn animals with less than 60 days' wool growth quoted as shorn. * Quotations on slaughter lambs of good and choice and of medium and good grades, as combined, represent lots averaging within the top half of the good and the top half of the medium grades, respectively.

CHICAGO PACKER PURCHASES

Purchases of livestock in Chicago by the principal packers for the first three days this week were 18,788 cattle, 2,640 calves, 41,177 hogs and 8,205 sheep.

TRIMMING OFF THE PROFITS

Do your men trim the profits off your pork loins? Read chapter 6 of "PORK PACKING." The National Provisioner's pork plant handbook.

PACKERS' PURCHASES

Purchases of livestock by packers at principal centers for the week ending Saturday, October 19, 1940, as reported to The National Provisioner:

CHICAGO

Armour and Company, 7,771 hogs; Swift & Company, 8,031 hogs; Wilson & Co., 8,594 hogs; Western Packing Co., Inc., 1,851 hogs; Agar Packing Co., 4,652 hogs; shippers, 3,851 hogs; others, 27,656 hogs.

Total: 39,142 cattle; 4,221 calves; 62,452 hogs; 13,090 sheep.

KANSAS CITY

	Cattle	Calves	Hogs	Sheep
Armour and Company	4,379	772	4,678	5,062
Cudahy Pkg. Co.	2,124	479	2,175	5,081
Swift & Company	2,713	773	3,077	4,051
Wilson & Co.	2,555	705	2,611	5,031
Indep. Pkg. Co.	.....	.....	300	.....
Kornblum Pkg. Co.	1,283	.....	.....	.....
Others	6,947	1,064	2,430	3,158
Total	20,063	3,703	15,271	22,383

OMAHA

	Cattle	Calves	Hogs	Sheep
Armour and Company	5,222	6,588	2,839	.....
Cudahy Pkg. Co.	3,524	4,259	3,853	.....
Swift & Company	3,626	3,747	2,793	.....
Wilson & Co.	1,544	3,421	1,340	.....
Others	.....	6,288	.....	.....
Total	20,964	6,986	58,076	12,631

Cattle and calves: Eagle Pkg. Co., 10; Greater Omaha Pkg. Co., 117; Geo. Hoffmann, 29; Lewis Pkg. Co., 876; Nebraska Beef Co., 711; Omaha Pkg. Co., 214; John Roth, 121; South Omaha Pkg. Co., 690; Lincoln Pkg. Co., 307.

Total: 17,006 cattle and calves; 24,303 hogs; 10,825 sheep bought direct.

EAST ST. LOUIS

	Cattle	Calves	Hogs	Sheep
Armour and Company	3,787	1,889	10,150	5,366
Swift & Company	3,880	3,310	10,497	4,417
Hunter Pkg. Co.	1,502	45	5,377	1,075
Heil Pkg. Co.	.....	2,403	.....	.....
Krey Pkg. Co.	.....	4,554	.....	.....
Laclede Pkg. Co.	.....	2,670	.....	.....
Siehoff Pkg. Co.	8,172	1,531	17,831	750
Shippers	3,623	211	3,764	1,023
Others	.....	.....	.....	.....
Total	20,964	6,986	58,076	12,631

ST. JOSEPH

	Cattle	Calves	Hogs	Sheep
Swift & Company	2,621	404	9,255	7,199
Armour and Company	3,062	444	8,292	3,812
Others	2,531	187	473	1,126
Total	8,234	1,035	18,020	12,137

Not including 3,666 hogs and 2,980 sheep bought direct.

SIoux CITY

	Cattle	Calves	Hogs	Sheep
Cudahy Pkg. Co.	2,375	82	5,095	3,472
Armour and Company	2,395	76	5,213	3,630
Swift & Company	2,279	83	3,064	2,502
Shippers	3,528	115	1,408	698
Others	333	5	47	3
Total	10,910	361	14,827	10,303

OKLAHOMA CITY

	Cattle	Calves	Hogs	Sheep
Armour and Company	2,203	1,173	3,272	1,316
Wilson & Co.	2,039	1,363	3,270	1,032
Others	296	16	1,316	46
Total	4,538	2,557	7,858	2,394

Not including 58 cattle and 2,563 hogs bought direct.

WICHITA

	Cattle	Calves	Hogs	Sheep
Cudahy Pkg. Co.	2,077	726	5,238	1,842
Wichita D. B. Co.	12	.....	.....	.....
Dunn-Ostertag	68	.....	102	.....
Fred W. Dold	136	.....	556	1
Sunflower Pkg. Co.	74	.....	383	.....
Pioneer Pkg. Co.	8	.....	.....	.....
Keefe Pkg. Co.	6	.....	.....	.....
Total	2,381	726	6,279	1,843

Not including 646 hogs bought direct.

DENVER

	Cattle	Calves	Hogs	Sheep
Armour and Company	782	139	1,967	10,349
Swift & Company	712	138	1,829	5,624
Cudahy Pkg. Co.	769	85	1,061	2,825
Others	2,107	162	1,759	8,342
Total	4,370	524	6,616	26,840

ST. PAUL

	Cattle	Calves	Hogs	Sheep
Armour and Company	2,922	2,850	24,328	13,769
Rifkin Pkg. Co.	679	132	.....	.....
Swift & Company	5,385	4,418	32,770	16,091
United Pkg. Co.	2,652	223	.....	.....
Cudahy Pkg. Co.	1,071	159	.....	.....
Others	2,558	459	.....	.....
Total	14,267	9,601	57,098	29,860

FORT WORTH

	Cattle	Calves	Hogs	Sheep
Armour and Company	2,594	2,722	2,744	2,732
Swift & Company	2,212	2,246	2,176	3,095
Blue Bonnet	253	86	1,295	.....
City Pkg. Co.	159	6	834	.....
Rosenthal Pkg. Co.	54	10	66	15
Total	5,272	5,070	7,215	5,842

INDIANAPOLIS

	Cattle	Calves	Hogs	Sheep
Kingan & Co.	1,047	316	23,746	2,463
Armour and Company	509	210	3,036	.....
Hilgemeier Bros.	9	.....	174	.....
Stump Bros.	205	33	650	.....
Stark & Wetzel	81	42	424	96
Wabnitz and Deters	30	14	.....	.....
Maass Hartman Co.	2,834	1,709	25,975	7,435
Shippers	1,538	352	282	232
Others	.....	.....	.....	.....
Total	6,953	2,676	55,245	10,216

CINCINNATI

	Cattle	Calves	Hogs	Sheep
S. W. Gall's Sons	.....	14	.....	388
E. Kahn's Sons Co.	656	180	6,319	1,719
Lohry Pkg. Co.	2	.....	381	.....
H. H. Meyer Pkg. Co.	14	.....	5,560	.....
J. Schlachter	154	146	.....	65
J. & F. Schroth P. Co.	14	.....	3,840	.....
J. F. Stegner Co.	500	273	.....	18
Shippers	895	.....	3,825	2,727
Others	1,679	721	203	196
Total	3,986	1,338	26,273	5,113

Not including 1,178 cattle, 5,950 hogs and 125 sheep bought direct.

RECAPITULATION†

	CATTLE	Calves	Hogs	Sheep
Chicago	39,142	4,176	62,452	13,090
Kansas City	20,063	17,006	24,303	10,825
Omaha	20,964	17,006	24,303	10,825
East St. Louis	20,964	17,006	24,303	10,825
St. Joseph	8,234	1,035	18,020	12,137
Sioux City	10,910	361	14,827	10,303
Okla. City	4,538	2,557	7,858	2,394
Wichita	2,381	726	6,279	1,843
Denver	4,370	524	6,616	26,840
St. Paul	14,267	9,601	57,098	29,860
Milwaukee	4,810	3,837	5,047	.....
Indianapolis	6,953	2,676	55,245	10,216
Cincinnati	3,986	1,338	26,273	5,113
Ft. Worth	5,272	5,070	7,215	5,842
Total	162,836	159,226	346,967	338,714

HOGS

	Week ended Oct. 19	Prev. week	Cor. week, 1939
Chicago	39,142	41,761	32,693
Kansas City	20,063	17,915	15,964
Omaha	20,964	15,264	14,911
East St. Louis	20,964	22,201	18,136
St. Joseph	8,234	7,621	6,286
Sioux City	10,910	10,437	7,402
Okla. City	4,538	4,025	6,069
Wichita	2,381	2,091	3,351
Denver	4,370	4,570	4,060
St. Paul	14,267	14,236	14,006
Milwaukee	4,810	3,837	5,047
Indianapolis	6,953	6,488	5,679
Cincinnati	3,986	3,851	4,511
Ft. Worth	5,272	4,929	6,219
Total	162,836	159,226	144,383

SHEEP

	Week ended Oct. 19	Prev. week	Cor. week, 1939
Chicago	13,090	17,681	18,895
Kansas City	22,383	22,770	26,773
Omaha	10,825	13,818	13,909
East St. Louis	12,631	15,406	13,812
St. Joseph	12,137	14,125	12,940
Sioux City	10,303	10,790	10,190
Okla. City	2,394	2,543	2,262
Wichita	1,843	2,254	1,555
Denver	26,840	64,815	22,848
St. Paul	29,860	23,231	24,064
Milwaukee	2,845	2,781	3,574
Indianapolis	10,216	11,473	9,607
Cincinnati	5,113	5,029	4,226
Ft. Worth	5,842	5,735	7,717
Total	168,324	213,451	172,372

† Cattle and calves. † Not including directs.

CHICAGO LIVESTOCK

Statistics of livestock at the Chicago Union Stock Yards for current and comparative periods.

RECEIPTS

	Cattle	Calves	Hogs	Sheep
Mon., Oct. 14	14,946	1,763	21,425	9,238
Tues., Oct. 15	5,223	916	25,206	5,190
Wed., Oct. 16	12,311	1,067	23,978	6,155
Thurs., Oct. 17	6,838	913	18,445	6,859
Fri., Oct. 18	1,250	369	10,139	3,967
Sat., Oct. 19	1,500	300	5,000	2,500
Total this week	42,108	5,328	104,193	34,200
Prev. week	42,342	4,892	94,688	43,324
Year ago	39,473	6,371	89,365	35,194
Two years ago	44,691	6,314	76,168	46,434

* Total this week.

† Including 661 cattle, 781 calves, 42,248 hogs and 20,986 sheep direct to packers from other points.

† All receipts include directs.

SHIPMENTS

	Cattle	Calves	Hogs	Sheep
Mon., Oct. 14	2,457	199	1,746	637
Tues., Oct. 15	2,406	179	291	494
Wed., Oct. 16	4,023	166	308	238
Thurs., Oct. 17	2,911	176	890	405
Fri., Oct. 18	950	100	1,087	330
Sat., Oct. 19	100	.....	.....	.....
Total this week	12,847	817	9,722	2,124
Previous week	15,347	705	5,103	1,850
Year ago	14,066	1,057	6,310	3,583
Two years ago	15,089	1,661	5,907	9,349

* Including 661 cattle, 781 calves, 42,248 hogs and 20,986 sheep direct to packers from other points.

† All receipts include directs.

OCTOBER AND YEAR RECEIPTS

Receipts thus far this month and year to date with comparisons:

	October	Year		
1940	1939	1940	1939	
Cattle	106,149	112,682	1,507,675	1,450,286
Calves	13,951	19,677	209,573	258,250
Hogs	261,542	205,892	4,020,736	3,124,378
Sheep	106,624	109,265	1,696,962	2,057,464

SLAUGHTER REPORTS

Special reports to THE NATIONAL PROVISIONER show the number of livestock slaughtered at 16 centers for the week ended October 19, 1940.

CATTLE

	Week ended Oct. 19	Prev. week	Cor. week, 1939
Chicago ¹	19,898	20,978	23,902
Kansas City ²	23,796	21,207	19,654
Omaha ³	17,066	15,808	17,425
East St. Louis	12,792	13,617	12,157
St. Joseph	7,305	7,207	6,214
Sioux City	7,668	6,922	5,103
Wichita	3,107	2,788	5,013
Fort Worth	10,342	9,913	13,050
Philadelphia	1,869	2,151	1,429
Indianapolis	1,750	1,747	1,534
New York & Jersey City	7,724	9,371	9,683
Oklahoma City ⁴	7,153	6,468	9,479
Cincinnati	4,435	4,585	4,383
Denver	3,919	4,621	4,228
St. Paul	11,638	10,914	10,612
Milwaukee	3,981	3,820	3,985
Total	144,483	142,177	147,871

* Cattle and calves. † Not including directs.

HOGS

Chicago	110,917	96,818	100,702
Kansas City	46,909	42,158	42,069
Omaha	37,476	26,596	31,504
East St. Louis	75,117	59,719	52,402
St. Joseph	20,389	19,838	15,982
Sioux City	18,048	15,340	14,117
Wichita	6,925	6,990	10,055
Fort Worth	7,215	5,519	6,104
Philadelphia	18,781	17,445	19,836
Indianapolis	22,798	25,544	18,714
New York & Jersey City	54,563	53,126	58,204
Oklahoma City	10,421	11,651	12,384
Cincinnati	23,447	22,832	18,456
Denver	7,152	6,385	6,511
St. Paul	57,098	48,673	51,504
Milwaukee	14,194	10,716	13,375
Total	531,450	469,349	471,949

¹ Includes National Stock Yards, East St. Louis, Ill., and St. Louis, Mo.

SHEEP

Chicago ¹	9,143	13,834	17,664
Kansas City	22,383	23,770	18,314
Omaha	15,338	23,244	18,314
East St. Louis	11,881	14,655	12,547
St. Joseph	14,000	14,953	12,237
Sioux City	10,319	10,573	9,666
Wichita	1,843	2,254	1,555
Fort Worth	5,842	5,735	7,717
Philadelphia	2,799	3,296	3,068
Indianapolis	2,875	2,896	3,148
New York & Jersey City	49,298	68,102	64,636
Oklahoma City	2,394	2,543	2,262
Cincinnati	2,182	3,182	4,038
Denver	7,888	8,605	8,204
St. Paul	29,860	23,231	24,064
Milwaukee	1,602	1,970	1,855
Total	189,647	222,843	218,849

† Not including directs.

RECEIPTS AT CHIEF CENTERS

Receipts for week ended October 19 were as follows:

At 20 markets:	Cattle	Hogs	Sheep
Week ended Oct. 19	264,000	460,000	310,000
Previous week	268,000	440,000	422,000
1939	250,000	418,000	310,000
1938	268,000	340,000	329,000
1937	317,000	356,000	359,000
At 11 markets:	Cattle	Hogs	Sheep
Week ended Oct. 19	264,000	460,000	310,000
Previous week	268,000	440,000	422,000
1939	250,000	418,000	310,000
1938	268,000	340,000	329,000
1937	317,000	356,000	359,000
At 7 markets:	Cattle	Hogs	Sheep
Week ended Oct. 19	200,000	328,000	199,000
Previous week	195,000	300,000	256,000
1939	176,000	288,000	193,000
1938	190,000	281,000	248,000
1937	219,000	297,000	225,000
1936	208,000	350,000	283,000

PACIFIC COAST LIVESTOCK

Receipts for 5 days ended Oct. 18:

	Cattle	Calves	Hogs	Sheep
Los Angeles	4,766	1,067	2,575	2,926
San Francisco	800	47	1,507	2,864
Portland	1,745	265	4,140	2,230

MEAT SUPPLIES AT EASTERN MARKETS

(Reported by the U. S. Department of Agriculture, Agricultural Marketing Service)

WESTERN DRESSED MEATS

	NEW YORK	PHILA.	BOSTON
STEERS, carcass			
Week ending October 19, 1940	9,115	2,386	2,771
Week previous	9,233	2,280	2,715
Same week year ago	10,191	2,704	2,647
COWS, carcass			
Week ending October 19, 1940	1,176	1,497	3,226
Week previous	1,200	1,440	3,192
Same week year ago	1,369	822	2,518
BULLS, carcass			
Week ending October 19, 1940	394	701	16
Week previous	378	774	32
Same week year ago	818	521	10
VEAL, carcass			
Week ending October 19, 1940	11,383	1,212	1,743
Week previous	10,080	1,541	1,042
Same week year ago	12,417	1,210	839
LAMB, carcass			
Week ending October 19, 1940	41,335	15,135	21,528
Week previous	40,060	17,266	21,385
Same week year ago	50,082	16,025	19,693
MUTTON, carcass			
Week ending October 19, 1940	1,604	887	1,357
Week previous	1,982	458	1,060
Same week year ago	1,913	391	1,953
PORK CUTS, lbs.			
Week ending October 19, 1940	2,300,357	408,725	258,820
Week previous	2,561,385	525,703	392,708
Same week year ago	1,960,651	322,819	441,242
BEEF CUTS, lbs.			
Week ending October 19, 1940	377,511	.....	.....
Week previous	475,534	.....	.....
Same week year ago	460,395	.....	.....

LOCAL SLAUGHTERS

CATTLE, head	Week ending October 19, 1940	7,724	1,860
	Week previous	9,371	2,151
	Same week year ago	9,093	1,429
CALVES, head	Week ending October 19, 1940	13,714	2,313
	Week previous	15,208	2,894
	Same week year ago	14,900	2,347
HOGS, head	Week ending October 19, 1940	51,476	18,781
	Week previous	53,126	17,445
	Same week year ago	57,862	19,836
SHEEP, head	Week ending October 19, 1940	49,208	2,769
	Week previous	68,102	3,296
	Same week year ago	64,636	3,068

Country dressed product at New York totaled 3,414 veal, 7 hogs and 241 lambs. Previous week 2,314 veal, 5 hogs and 149 lambs in addition to that shown above.

WEEKLY INSPECTED KILL

Hog slaughter for the week ended October 18 was the heaviest in more than seven months. Total kill reached 755,241 head during the week compared with 656,642 head during the previous week and 672,889 head during the same week in 1939.

Number of animals processed in 27 centers for week ended October 18:

	Cattle	Calves	Hogs	Sheep
New York Area ¹	7,724	13,734	54,563	49,298
Phila. & Balt.	3,699	782	34,400	1,726
Ohio-Indiana Group ²	9,396	3,272	64,534	9,200
Chicago ³	28,201	5,586	110,917	52,502
St. Louis Area ⁴	14,944	9,312	75,117	17,552
Kansas City	15,568	6,338	46,909	21,659
Southwest Group ⁵	16,929	9,781	40,803	26,004
Omaha	15,693	1,218	37,476	22,276
Sioux City	7,220	279	18,048	13,703
St. Paul-Wisc. Group ⁶	21,521	24,096	122,649	39,740
Interior Iowa & So. Minn. ⁷	14,254	6,900	149,825	45,133
Total	155,047	81,298	755,241	296,793
Total prev. week	149,746	81,483	656,642	333,750
Total last year	144,597	86,297	672,889	289,496

¹ Includes New York City, Newark, and Jersey City. ² Includes Cincinnati, and Cleveland, Ohio, and Indianapolis, Ind. ³ Includes Elburn, Ill. ⁴ Includes National Stockyards and East St. Louis, Ill., and St. Louis, Mo. ⁵ Includes So. St. Joseph, Wichita, Oklahoma City, and Ft. Worth. ⁶ Includes St. Paul, So. St. Paul and Newport, Minn., and Madison and Milwaukee, Wisc. ⁷ Includes Albert Lea and Austin, Minn., and Cedar Rapids, Des Moines, Ft. Dodge, Mason City, Marshalltown, Ottumwa, Storm Lake, and Waterloo, Iowa.

Packing plants included in the above tabulation slaughtered during the calendar year 1939 approximately 74% of the cattle, calves, and hogs, and 82% of the sheep and lambs that were slaughtered under Federal inspection that year.

CANADIAN LIVESTOCK PRICES

STEERS	Week ended Oct. 17	Last week	Same week 1939
Toronto	\$ 8.35	\$ 8.35	\$ 7.75
Montreal	8.00	7.75	7.75
Winnipeg	7.75	8.00	6.75
Calgary	7.00	7.50	6.50
Edmonton	7.00	7.50	6.00
Prince Albert	6.50	7.00	5.75
Moose Jaw	6.75	6.50	6.00
Saskatoon	7.00	7.50	5.80
Regina	6.25	6.50	6.00
Vancouver	7.65	...	6.75

VEAL CALVES	Week ended Oct. 17	Last week	Same week 1939
Toronto	\$11.50	\$11.50	\$11.00
Montreal	11.50	11.00	10.00
Winnipeg	9.00	9.00	8.00
Calgary	7.50	8.00	6.50
Edmonton	8.50	8.50	7.50
Prince Albert	7.50	7.50	7.00
Moose Jaw	7.50	8.00	7.00
Saskatoon	8.00	7.75	7.50
Regina	7.50	7.50	7.00
Vancouver	9.00	...	7.25

HOG CARCASSES ¹	Week ended Oct. 17	Last week	Same week 1939
Toronto	\$12.00	\$12.15	\$ 9.35 ²
Montreal	12.00	12.00	9.75
Winnipeg	11.15	11.15	8.75
Calgary	10.85	10.95	8.60
Edmonton	10.65	10.45	8.50
Prince Albert	10.85	10.70	8.45
Moose Jaw	10.80	10.80	8.50
Saskatoon	10.80	10.80	8.45
Regina	10.85	10.85	8.50
Vancouver	...	...	...

¹ Official Canadian hog grades are now on carcass basis, quotations for B1 Grade; Grade A, \$1.00 premium. ² Quoted on ewe weight basis.

GOOD LAMBS	Week ended Oct. 17	Last week	Same week 1939
Toronto	\$ 9.50	\$ 9.25	\$ 9.60
Montreal	9.00	8.75	9.50
Winnipeg	7.75	7.75	8.25
Calgary	8.50	8.25	7.65
Edmonton	8.00	7.50	8.00
Prince Albert	7.00	7.00	7.00
Moose Jaw	7.75	7.35	8.00
Saskatoon	7.15	7.00	7.25
Regina	7.00	7.00	7.50
Vancouver	9.00	...	9.00

CLASSIFIED ADVERTISEMENTS

Advertisements on this page, 10c per word per insertion, minimum charge \$2.00. Position wanted, special rate 7c per word, minimum charge \$1.40. Count address or box number as four words. Headline 70c extra.

Position Wanted

SAUSAGE FOREMAN—Expert sausagemaker with 26 years' experience wishes permanent position as foreman with middle-sized or large firm, preferably in the East. Can furnish best references. Available at once. Box W-44, THE NATIONAL PROVISIONER, 407 So. Dearborn St., Chicago, Ill.

POSITION AS ASSISTANT superintendent or curing foreman. Experienced in all pork operations, large, small or medium sized plants. Employed, good reason for desiring change. A-1 references. Box W-51, THE NATIONAL PROVISIONER, 407 So. Dearborn St., Chicago, Ill.

SALESMAN OR BROKERAGE — (34) Fifteen years' branch house manager including five years as produce manager. Philadelphia, Pa. Box W-49, THE NATIONAL PROVISIONER, 407 So. Dearborn St., Chicago, Ill.

Sales Manager

or assistant to owner. Many years in charge of sales and provisions. Aggressive, responsible. Employed at present, good reason for making change. A-1 references. Box W-52, THE NATIONAL PROVISIONER, 407 So. Dearborn St., Chicago, Ill.

Business Opportunities

FOR SALE—interest in small, going packinghouse in Southwest. Box W-46, THE NATIONAL PROVISIONER, 407 So. Dearborn St., Chicago, Ill.

FOR SALE: COMPLETELY equipped, small, modern packinghouse located in Michigan. Oldest concern in district. Sell in hundred mile radius. Low labor overhead. All offers considered. Owner in ill health. Box W-55, THE NATIONAL PROVISIONER, 407 So. Dearborn St., Chicago, Ill.

THIS SPACE offers you a chance to present your story to the Meat Packing Industry—you may want to dispose of your plant or you may want to make new connections with a new partner for investment purposes. In any case you may do this cheaply and quickly here. THE NATIONAL PROVISIONER, 407 So. Dearborn St., Chicago, Ill.

For Sale

Small meat plant, fully equipped for manufacturing, room for slaughtering. Near Philadelphia. Sacrifice.

Chas. Abrams
13 So. 2nd St. Walnut-3846
Philadelphia, Pa.

Men Wanted

WANTED: SUPERINTENDENT by Kentucky packer, must have practical experience in killing, cutting, curing and smoking high grade products; give reference and state salary expected. Box W-53, THE NATIONAL PROVISIONER, 407 So. Dearborn St., Chicago, Ill.

WANTED:—HIGHLY EXPERIENCED rendering superintendent or foreman who has had considerable experience in dry rendering. State salary and experience with reference. Box W-54, THE NATIONAL PROVISIONER, 407 So. Dearborn St., Chicago, Ill.

Miscellaneous

MEAT EXPERT HAS perfected and now is introducing the newest method tenderizing and mellowing meats while curing, producing a new and better flavored ham much in demand. Write J. L. Wilde, % THE NATIONAL PROVISIONER, 407 So. Dearborn St., Chicago, Ill.

Equipment Wanted

Packing Equipment Wanted

Wanted for user 2—50 and 100 lb. Silent Cutters 2—50 and 100 lb. Stuffers: 2—100 and 200 lb. Mixers: 3—Grinders; Filter Press. Lard Cooling Roll. No dealers. W-718, THE NATIONAL PROVISIONER, 300 Madison Ave., New York City.

Equipment for Sale

Refrigerating Equipment

We offer for sale the following latest type equipment from one of our modern ice plants: Ammonia compressors, condensers, shell brine coolers, coils, electric air compressors and air blowers, electric water pumps, electric cranes and hoists, motors, etc.

Midwest Ice Company
3920 W. Harrison St. Chicago, Ill.

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Do You Need a Good Man?

LIST YOUR NEEDS WITH

THE NATIONAL PROVISIONER

Equipment for Sale

Meat Packing Equipment Offerings

- 10—Aluminum St. Jack. Kettles, 40, 60, 80, 100 gal.
- 1—Meakin horis. continuous Crackling Press, with tempering apparatus, 30 h.p. Motor, 800 to 1000 lb. cap. per hour
- 5—9"19" Revolving Digesters or Percolators. 4000 Ft. Drag, Scraper and Screw Conveyor.
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- 25—Dopp Kettles, all sizes
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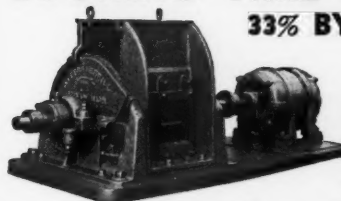
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Rib

D. S. Fat Backs

D. S. Rough Ribs

Other D. S. Meats

Export Cuts

Fresh Pork Cuts

Barrelled Pork and Beef

Lard

Cash

Refined

Neutral

Futures

Sausage Materials

Pork Trimmings

Boneless Beef

Dressed Beef for Boning

Pork and Beef Offal

Beef Ham Sets

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Cottonseed Oil

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Hog Markets

Provision Stocks

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all handled by the
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PROVISIONER

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CHICAGO

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HAPHAZARD WAY
by rumor,
guesswork,
and
hasty judgment

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by the facts
presented in
ABC REPORTS

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It is your insurance that you will get what you pay for. It protects the buyer and the honest publisher. It is made possible by over 2000 publishers, advertisers and advertising agencies. Together they provide you with this insurance policy. Use it. It costs you nothing. It may save you much.

We will be glad to give you a copy of our latest A.B.C. report, containing the facts by which you can judge the value of this paper.



THE NATIONAL PROVISIONER

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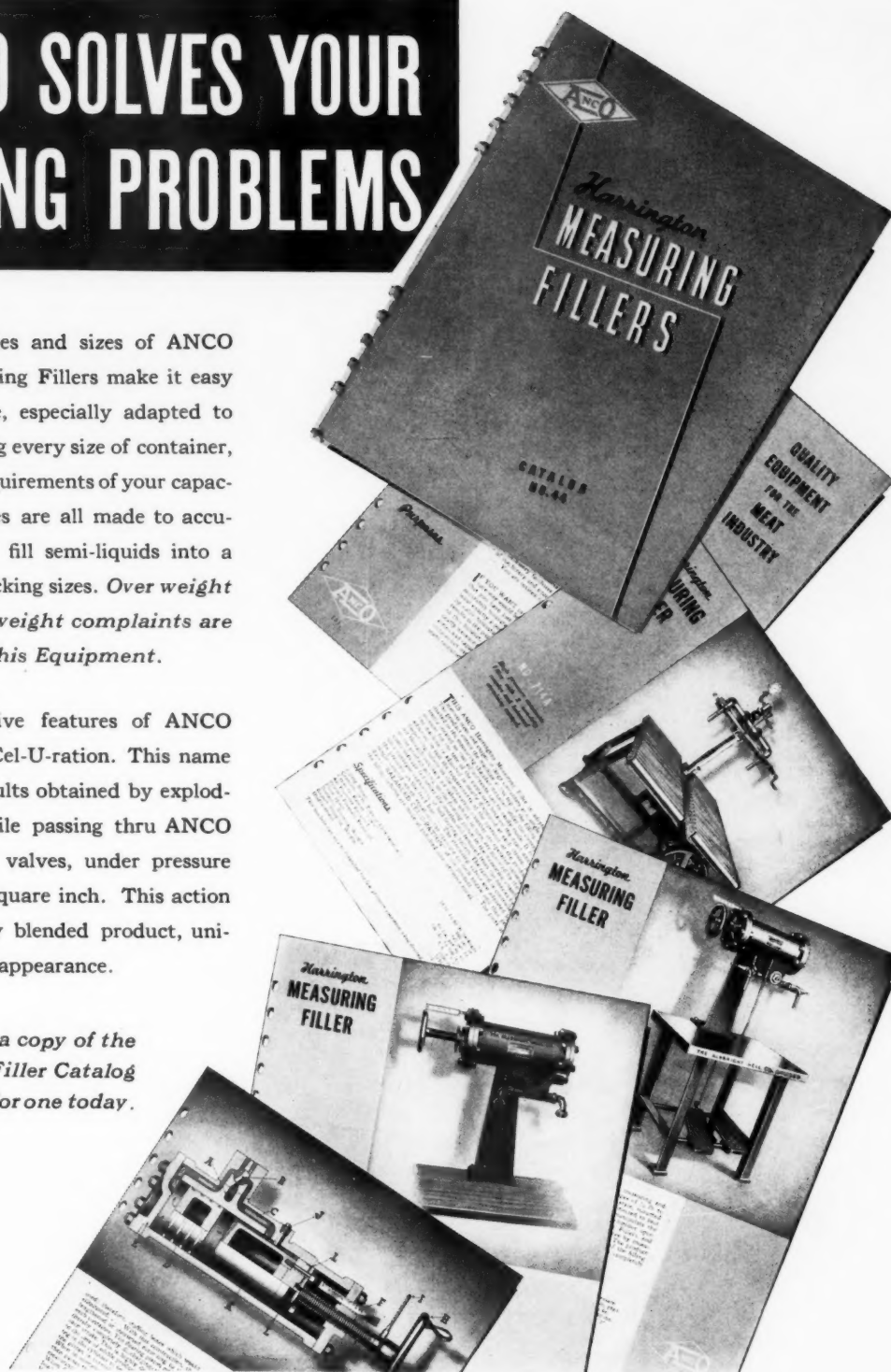
A.B.C. = Audit Bureau of Circulations = FACTS as a yardstick of advertising value

ANCO SOLVES YOUR FILLING PROBLEMS

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INDUSTRIAL SOAP DEPARTMENT

PRIDE WASHING POWDER

